

FEDERAL ITEM IDENTIFICATION GUIDE

NUTS

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Commander

Defense Logistics Information Service

ATTN: DLIS-K

74 Washington Avenue North, Suite 7

Battle Creek, Michigan 49037-3084

(COMM) (269) 961-5779

(DSN) 661-5779

This Federal Item Identification Guide for Supply Cataloging is issued under the authority of Department of Defense Instruction 5025.7.

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BY ORDER OF THE DIRECTOR

/s/

Commander

Defense Logistics Information Service

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GENERAL INFORMATION

1. Purpose and Scope

This Federal Item Identification Guide (FIIG) is a self-contained document for the collection, coding, transmittal, and retrieval of item characteristics and related supply management data for an item of supply for logistical use. This FIIG is to be used to describe items of supply identified by the index of approved item names appearing in this section.

2. Contents

This FIIG is comprised of the following:

- Index of Approved Item Names Covered by this FIIG
- Applicability Key Index
- Section I - Item Characteristics Data Requirements
- Section III - New text that should be here.
- Appendix A - Reply Tables
- Appendix B - Reference Drawing Groups (as applicable)
- Appendix C - Technical Data Tables (as applicable)

a. Index of Approved Item Names Covered by this FIIG:

The index lists the approved item names with definitions and item name codes as they appear in Cataloging Handbook H6, applicable to this FIIG. In addition, each name entry is assigned an applicability key for use in relating the characteristics requirements in Section I to the specific item name.

b. Applicability Key Index:

The purpose of this index is to provide the user with a ready reference for determining the specific requirements which are applicable to a given approved item name. This index lists all requirements in sequence as they appear in the FIIG. The applicability of a Master Requirement Coded requirement is indicated by the column headed by the specific item name applicability key as follows:

- (1) The letter "X" indicates the requirement must be answered for a full descriptive item.
- (2) The letters "AR" indicate the requirement is to be answered as required by (1) instructional notes within the FIIG; (2) when the reply is predicated on replies to a related main requirement; or (3) when an asterisk (*) is used in conjunction with the applicability key column in Section I.
- (3) A blank in the column indicates the requirement is not applicable to the specific item name.

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c. Section I - Item Characteristics Data Requirements:

This section contains the physical and performance characteristics requirements needed to describe and identify an item of supply. These characteristics differentiate one item from all other items of supply and are to be used to meet the needs of all supported functions. This section is arranged in columns. Identification of each column and instructions pertinent thereto are as follows:

(1) Applicability Key:

The first column shows the applicability key(s) for each requirement. It indicates whether the requirement need be satisfied for the item being identified. "ALL" indicates that the requirement must be answered for all items covered by the FIIG. One or more alphabetic character(s) or group of one or more alphabetic characters indicates a response is required when describing items with an approved item name or names represented by the key(s). An asterisk (*) used in conjunction with any applicability key indicates that the characteristic stated in the requirement may not be applicable to all items covered by the FIIG.

(2) Master Requirement Codes (MRC):

A four-position code which is assigned to a FIIG requirement for identification of the requirement, cross-referencing requirements in the various sections and appendices of the FIIG, and for mechanized processing and retrieval of FIIG generated data. Absence of a MRC for a requirement indicates a lead-in to requirements with individual MRCs in Appendix B.

(a) The coding technique for providing MULTIPLE/OPTIONAL responses will not be used for a Section I requirement assigned Mode Code A or L that leads to Appendix B sketches with dimensional requirements.

(b) Identified Secondary Address Coding:

This technique is for extending the Master Requirement Code so that a unique address is provided for each application of the requirement in relation to the item and is authorized only as instructed within the requirement. Responses coded through this technique will always consist of the following: (1) Master Requirement Codes, (2) indicator code (a single numeric character determined by the number of positions contained), (3) identified secondary address code (1 to 3-digit alphabetic codes determined by the number of predicted replies), (4) the mode code, (5) the reply code and/or clear text response, and (6) end with a record separator (*). Steps (1) through (6) are repeated for each application of the requirement.

(c) AND/OR coding:

A technique for extending the Master Requirement Code to provide a distinctive address for multiple responses to the same requirement. Responses coded through this technique will always consist of (1) Master Requirement Code, (2) mode code, (3) the response or reply code (as instructed by the requirement), (4) a single dollar sign (\$) for an OR condition, or a double dollar sign (\$\$) for an AND condition, (5) the mode code, (6) the response or reply code

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(followed by conditions (4) through (6) for each of the multiple responses) and (7) end with a record separator (*). NOTE: Apply this technique only when instructed by the requirement sample reply (e.g.).

(3) Mode Code:

A one-position alphabetic code that specifies the manner in which a response will be prepared. Each requirement assigned a MRC is also assigned a mode code. Sample replies follow each FIIG requirement displaying the proper construction of a response for the assigned mode code. The response to a requirement will always be prepared in accordance with the assigned mode code and sample reply except in the following instances:

(a) Use of E Mode Code replies is not authorized. If a reply needed to describe an item is not listed in the applicable table, contact the FIIG Initiator.

(b) Mode Code K may not be used for any requirement unless instructed by the requirement instructions.

(4) Requirement:

This portion includes the characteristics data elements and data use identifiers required to identify and differentiate one item of supply from another, narrative definitions, and explanations as to use and method of expression. Instructions for coding and preparing replies are also provided.

(5) Reply Code:

A code that represents an established authorized reply to a requirement.

d. Section III - Supplementary Technical and Supply Management Data:

This section includes those characteristics requirements necessary to support specific logistics functions other than National Stock Number assignment.

e. Appendix A - Reply Tables:

Tables of authorized replies to requirements and reply codes when the tables are too lengthy for inclusion in Section I/III, when applicable.

f. Appendix B - Reference Drawings:

This appendix contains representative illustrations which portray specific variations of one or more generic characteristics. If reference drawings contain requirements pages to be used in conjunction with illustrations for dimensioning purposes, the requirements pages will contain Master Requirement Codes, mode codes, and a statement of the requirement. A response to requirements on a requirements page is necessary only for those Master Requirement Codes applicable to the illustration selected.

g. Appendix C - Technical Data Tables:

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This appendix contains conversion charts and similar data pertinent to the requirements in Section I/III, when applicable.

3. Enter administrative MRC CLQL immediately following the last FIIG requirement reply, as instructed below:

| <u>MRC</u> | <u>Mode Code</u> | <u>Requirement</u> | <u>Example</u> |
|------------|------------------|---|-------------------------|
| CLQL | G | COLLOQUIAL NAME (common usage name by which an item is known) | CLQLGW OVEN WIRE CLOTH* |

4. Special Instructions and Indicator Definitions

a. Measurements:

Unless otherwise indicated within a requirement example, enter all measurements in decimal form, carried to the nearest three decimal places, with a minimum of one digit preceding the decimal. For SI (metric), enter all measurements with a minimum of one digit before and after the decimal. For fraction to decimal conversion, see Appendix C.

b. Indicators:

A cross hatch (#) following an AIN, MRC, Reply Code or Drawing Number indicates for "ALL EXCEPT USA" use only.

5. Indexes

a. Index of Data Requirements

This index is arranged in alphabetic sequence by Master Requirement Code, cross-referenced to the applicable data requirement and page number(s).

b. Index of Approved Item Names

This index is arranged in alphabetic sequence referenced to Applicability Key.

c. Applicability Key Index

This index is arranged in Applicability Key Sequence.

6. Maintenance

Requests for revisions and other changes will be directed to:

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| <u>Approved Item Name</u> | <u>INC</u> | <u>App Key</u> |
|---|------------|----------------|
| LOCKNUT, PIPE | 12802 | CV |
| <p>A hexagonal or octagonal nut containing internal straight pipe threads. It has flat faces, one of which contains a packing recess. See also LOCKNUT, ELECTRICAL CONDUIT; LOCKNUT, TUBE FITTING; and SEAL NUT, PIPE.</p> | | |
| LOCKNUT, RAPID ALIGNMENT | 40079 | AG |
| <p>An item having internal threads designed to mate with an external thread. The item is two permanently joined, independently rotatable slotted nuts. In the open state (slots aligned), the item can be readily slipped onto or off a threaded rod, bolt, or the like. In the closed state (180 degrees between nut slots), the nut locks onto the external thread. The slots run the entire height of the nut. Excludes NUT, PLAIN, SLOTTED (as modified); NUT, SELF-LOCKING, SLOTTED (as modified).</p> | | |
| LOCKNUT, TUBE FITTING | 17645 | CW |
| <p>An item with internal machine threads designed to fit the external machine threads of a tube fitting. It has flat faces, one of which has a counterbored recess to accommodate packing, packing or sealing ring(s), gasket(s), and the like. The item, when installed, provides a method of locking and sealing the connection. See also LOCKNUT, PIPE; NUT (1), TUBE COUPLING; and NUT (1), PLAIN, HEXAGON.</p> | | |
| <p>Nut</p> <p>1. A fastening device of various shapes having an internal thread or an aperture of lugs or prongs designed to mate with an external thread for the purpose of securely holding threaded members brought into engagement therewith.</p> | | |
| NUT ASSEMBLY, RETAINER PLATE | 16006 | CN |
| <p>A square or rectangular flat metal plate upon which replaceable nuts are assembled in predetermined spacing. The plate has a centrally located hole.</p> | | |
| NUT ASSEMBLY, RETAINER RING | 16007 | CN |
| <p>An item consisting of a flat metal ring designed to be fastened in place, upon which replaceable nuts are assembled in predetermined spacing.</p> | | |
| NUT ASSEMBLY, SELF-LOCKING, GANG ANGLE | 60782 | DF |
| <p>An item composed of a specifically designed angle and a series of nuts having integral self-locking features assembled in a predetermined spacing.</p> | | |

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| <u>Approved Item Name</u> | <u>INC</u> | <u>App Key</u> |
|--|------------|----------------|
| NUT ASSEMBLY, SELF-LOCKING, GANG CHANNEL | 01864 | CQ |
| An item composed of a specially designed channel and a series of nuts having integral self-locking features assembled in predetermined spacing. | | |
| NUT BLANK | 01874 | CR |
| An item which resembles any of various nuts in shape and is intended for a subsequent threading operation. | | |
| NUT, BLIND ASSEMBLY | 40121 | DE |
| A two-piece fastener consisting of a sleeve and an expander nut. The nut is self-retaining when drawn into the sleeve with a mandrel or other special tool. The item is designed to be installed or expanded from only one side of a structure or component part. Excludes RIVET, BLIND. | | |
| NUT, BREAKAWAY | 68421 | AG |
| A nut having a hexagon top end and an internal threaded skirt (bottom end). When installed, the top end is designed to break to a certain torque. The skirt remains in place and provides fastening and becomes non removable. | | |
| NUT (1), CLIP-ON | 35871 | CM |
| An internally threaded fastener, plain or self-locking, of various shapes attached to a preformed item of semi-rigid material designed to retain, position or support other items by its own inherent spring action. The internally threaded fastener and the preformed item may be of one piece construction or fastened together by other means. | | |
| NUT (1), CONCAVE, HEXAGON | 15888 | AA |
| A hexagon nut having a concave face and a concave or slotted top. | | |
| NUT (1), CONCAVE, SQUARE | 15889 | AA |
| A square nut having a concave face and a concave or slotted top. | | |
| NUT, COUPLING, ELECTRICAL CONNECTOR | 51281 | CX |
| An item with internal threads and an internal seat, specifically designed to hold together mated electrical connector components. | | |
| NUT, EYE | 15897 | AC |
| A combination eye and nut, formed in one piece, and when fitted to an externally threaded object, the eye is used as an attaching medium. | | |

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| <u>Approved Item Name</u> | <u>INC</u> | <u>App Key</u> |
|--|------------|----------------|
| NUT, HOSE COUPLING | 03858 | DC |
| A cylindrical item which serves as the outer shell of a multipiece end connection designed to directly grip the end of a hose. | | |
| NUT (1), PLAIN, ASSEMBLED WASHER | 21824 | AD |
| A plain nut on which has been assembled a nonremovable washer. | | |
| NUT (1), PLAIN, BARREL | 21926 | AE |
| A nut of cylindrical or partly cylindrical cross-section with integral threads perpendicular to the axial centerline. Ends may be flat or flanged. Excludes NUT (1), PLAIN, ROUND. | | |
| NUT (1), PLAIN, BLIND RIVET | 01873 | AF |
| A metallic headed fastener having internal threads for a portion of the full length. It may have a smooth, hexagon or splined shank with an open or closed end. Is designed to be expanded tightly against the material it is being installed in by means of a special tool. The item must have a specified grip range. The grip range is the thickness of the material the item is being installed in. See also NUT (1), SELF-LOCKING, BLIND RIVET. Excludes NUT (1), SLEEVE. | | |
| NUT (1), PLAIN, CAP | 01855 | AG |
| An item internally threaded from one end, and completely inclosed on the opposite end. The outer periphery parallel to the threaded axis may be square, cylindrical, hexagonal, octagonal, or dodecagonal and taper to a cone or dome shape on the closed end. For like items which are stamped or formed from sheet stock, see NUT (1), STAMPED. For similar items which are flat on top and bottom, see NUT (1), SLEEVE or POST, ELECTRICAL-MECHANICAL EQUIPMENT. | | |
| NUT (1), PLAIN, CASTELLATED, DOUBLE HEXAGON | 38228 | AG |
| A nut having 12 drive points and 24 sides, flat on the bottom, and having a slotted cylindrical or dome shaped upper portion. It is designed to provide positive locking when used with a solid or split (cotter) pin. | | |
| NUT (1), PLAIN, CASTELLATED, HEXAGON | 01854 | AG |
| A nut having 6 flat sides, flat on the bottom and having a slotted cylindrical or dome shaped upper portion. It is designed to provide positive locking when used with a solid or split (cotter) pin. Excludes NUT (1), PLAIN, SLOTTED, HEXAGON. | | |
| NUT (1), PLAIN, CASTELLATED, OCTAGON | 16978 | AV |
| A nut having 8 flat sides, flat on the bottom and having a slotted cylindrical or dome shaped upper portion. It is designed to provide positive locking when used with a solid or split (cotter) pin. Excludes NUT (1), PLAIN, SLOTTED, OCTAGON. | | |

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| <u>Approved Item Name</u> | <u>INC</u> | <u>App Key</u> |
|---|------------|----------------|
| NUT (1), PLAIN, CLINCH | 01860 | AK |
| A nut having a sleeve portion on its under side, which can be crimped or clinched to hold the item in place when inserted in a hole. | | |
| NUT (1), PLAIN, CONE SEAT, HEXAGON | 05282 | AL |
| A nut having 6 flat sides and a cone seat bearing surface. Items may have a removable collar. See also NUT (1), PLAIN, SINGLE BALL SEAT, HEXAGON. | | |
| NUT (1), PLAIN, DODECAGON | 01856 | AG |
| A nut, flat on top and bottom, having 12 flat sides. For items having a thickness (or height) exceeding two times the width across the flats, use POST, ELECTRICAL-MECHANICAL EQUIPMENT. (When height or thickness and/or width across the flats is designated as a tolerance dimension, the maximum dimension will be used to determine compliance.) | | |
| NUT (1), PLAIN, DOUBLE BALL SEAT, HEXAGON | 04891 | AN |
| A nut having opposite convex spherical bearing surfaces and 6 flat sides. | | |
| NUT (1), PLAIN, EXTENDED WASHER, DOUBLE HEXAGON | 04888 | AP |
| A nut having 12 drive points, 24 sides, and integral washer which extends beyond the points or periphery. | | |
| NUT (1), PLAIN, EXTENDED WASHER, HEXAGON | 04889 | AP |
| A nut having 6 flat sides and an integral washer which extends beyond the flats or periphery. | | |
| NUT (1), PLAIN, EXTENDED WASHER, ROUND | 36743 | AP |
| A nut, circular in shape, having wrenching facilities such as flats, holes, protrusions, slots or splines in or on the periphery. It has an integral washer which extends beyond the wrenching element periphery. | | |
| NUT (1), PLAIN, EXTENDED WASHER, SQUARE | 04890 | AP |
| A nut having 4 flat sides and an integral washer which extends beyond the flats or periphery. | | |
| NUT (1), PLAIN, EXTENDED WASHER, TRIANGULAR | 40073 | AQ |
| An item having three equiangular flat sides and an integral washer extending beyond the flats or periphery. | | |

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| <u>Approved Item Name</u> | <u>INC</u> | <u>App Key</u> |
|---|------------|----------------|
| NUT (1), PLAIN, HEXAGON | 01857 | AG |
| <p>A nut, flat on top and bottom having 6 flat sides. For items which have internal tapered or straight (parallel) pipe threads, specific electrical conduit size designation, and which when installed, provide a method of tightening to lock the connection, see LOCKNUT, ELECTRICAL CONDUIT. See also LOCKNUT, TUBE FITTING. For items having a thickness (or height) exceeding two times the width across the flats, use POST, ELECTRICAL-MECHANICAL EQUIPMENT. (When height or thickness and/or width across the flats is designated as a tolerance dimension, the maximum dimension will be used to determine compliance.)</p> | | |
| NUT (1), PLAIN, INTERNAL WRENCHING | 04893 | AT |
| <p>A cylindrical-shaped nut, the end opposite the bearing surface being designed with an internal socket or splines for use with an inserted wrench.</p> | | |
| NUT (1), PLAIN, KNURLED | 15886 | AU |
| <p>A nut, round in shape, having all or part of its outer surface knurled. It may have provisions for external wrenching. For items having a thickness (or height) exceeding two times the outside diameter, use POST, ELECTRICAL-MECHANICAL EQUIPMENT. See also NUT (1), PLAIN, ROUND. (When height or thickness and/or outside diameter is designated as a tolerance dimension, the maximum dimension will be used to determine compliance.)</p> | | |
| NUT (1), PLAIN, OCTAGON | 16979 | AG |
| <p>A nut, flat on top and bottom, having 8 flat sides. It may include a retaining dowel pin. For items having a thickness (or height) exceeding two times the width across the flats, use POST, ELECTRICAL-MECHANICAL EQUIPMENT. (When height or thickness and/or width across the flats is designated as a tolerance dimension, the maximum dimension will be used to determine compliance.)</p> | | |
| NUT (1), PLAIN, PENTAGON | 34775 | AG |
| <p>A nut having five flat sides and a flat surface on both ends.</p> | | |
| NUT (1), PLAIN, PLATE | 01872 | AW |
| <p>A nut with a flanged base of varied shapes which may be plain or mounted by rivets, bolts, welding, integral prongs or by bonding.</p> | | |
| NUT (1), PLAIN, RECTANGULAR | 15890 | AX |
| <p>A nut, flat on top and bottom, having four flat sides of which two parallel sides are shorter than the other two. For items having a thickness (or height) exceeding two times the width, use POST, ELECTRICAL-MECHANICAL EQUIPMENT. (When height or thickness and/or width is designated as a tolerance dimension, the maximum dimension will be used to determine compliance.)</p> | | |

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| <u>Approved Item Name</u> | <u>INC</u> | <u>App Key</u> |
|--|------------|----------------|
| NUT (1), PLAIN, ROUND | 15887 | AY |
| <p>A nut, circular in shape, which may have wrenching facilities such as flats, holes, protrusions, slots or splines in or on the periphery or in the face opposite the bearing surface. For items having a thickness (or height) exceeding two times the outside diameter, use POST, ELECTRICAL-MECHANICAL EQUIPMENT. See also NUT (1), PLAIN KNURLED. (When height or thickness and/or outside diameter is designated as a tolerance dimension, the maximum dimension will be used to determine compliance.)</p> | | |
| NUT (1), PLAIN, SINGLE BALL SEAT, HEXAGON | 04892 | AZ |
| <p>A nut having 1 convex, spherical bearing surface and 6 flat sides. Items may have a removable collar. See also NUT (1), PLAIN, CONE SEAT, HEXAGON.</p> | | |
| NUT (1), PLAIN, SLOTTED, HEXAGON | 01859 | AG |
| <p>A nut having a flat bearing surface and 6 flat sides with slots in its upper portion. It is designed to provide positive locking when used with a solid or split (cotter) pin. Excludes NUT (1), PLAIN, CASTELLATED, HEXAGON.</p> | | |
| NUT (1), PLAIN, SLOTTED, OCTAGON | 16980 | AV |
| <p>A nut having a flat bearing surface and 8 flat sides with slots in its upper portion. It is designed to provide positive locking when used with a solid or split (cotter) pin. Excludes NUT (1), PLAIN, CASTELLATED, OCTAGON.</p> | | |
| NUT (1), PLAIN, SPLINE | 01861 | BC |
| <p>A nut having an externally splined sleeve which holds it in position when forced into a hole of slightly smaller diameter.</p> | | |
| NUT (1), PLAIN, SQUARE | 01858 | AG |
| <p>A nut, flat on top and bottom, having 4 flat sides. For items having a thickness (or height) exceeding two times the width across the flats, use POST, ELECTRICAL-MECHANICAL EQUIPMENT. (When height or thickness and/or width across the flats is designated as a tolerance dimension, the maximum dimension will be used to determine compliance.)</p> | | |
| NUT (1), PLAIN, WELDING | 15885 | BE |
| <p>A nut with projection(s) that is/are designed to localize heating, during welding, at predetermined points and to fuse with the metal to which the nut is mounted.</p> | | |
| NUT (1), PLAIN, WING | 01862 | BF |
| <p>A nut having wings designed for manual turning without driver or wrench.</p> | | |

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| <u>Approved Item Name</u> | <u>INC</u> | <u>App Key</u> |
|---|------------|----------------|
| NUT (1), SELF-LOCKING, ASSEMBLED WASHER | 29736 | BG |
| A nut on which has been assembled a nonremovable washer. An integral feature is incorporated for locking on the threads of a mating member. | | |
| NUT (1), SELF-LOCKING, BARREL | 15891 | BH |
| A nut of cylindrical or partly cylindrical cross-section with integral threads perpendicular to the axial centerline. Ends may be flat or flanged. An integral feature is incorporated for locking on the threads of a mating member. Excludes NUT (1), SELF-LOCKING, ROUND. | | |
| NUT (1), SELF-LOCKING, BLIND RIVET | 29724 | BJ |
| A metallic headed fastener having internal threads for a portion of the full length. It may have a smooth, hexagon or splined shank with an open or closed end. It is designed to be expanded tightly against the material it is being installed in by means of a special tool. The item must have a specified grip range. The grip range is the thickness of the material the item is being installed in. An integral feature is incorporated for locking on the threads of a mating member. | | |
| NUT (1), SELF-LOCKING, CAP | 05275 | BK |
| A nut internally threaded from one end, and completely enclosed on the opposite end. The outer periphery parallel to the threaded axis may be square, cylindrical, hexagonal, octagonal, dodecagonal or the like and taper to a cone or dome shape on the closed end. An integral feature is incorporated for locking on the threads of a mating member. Excludes NUT (1), STAMPED. | | |
| NUT (1), SELF-LOCKING, CASTELLATED, DOUBLE HEXAGON | 35607 | BK |
| A nut having 12 drive points, 24 sides, flat on the bottom and having a slotted cylindrical or dome shaped upper portion. An integral feature is incorporated for locking on the threads of a mating member. The slots when used in conjunction with a solid or split (cotter) pin, act as an extra "fail safe" feature in critical applications. | | |
| NUT (1), SELF-LOCKING, CASTELLATED, HEXAGON | 29725 | BK |
| A nut having 6 flat sides, flat on the bottom and having a slotted cylindrical or dome shaped upper portion. An integral feature is incorporated for locking on the threads of a mating member. The slots when used in conjunction with a solid or split (cotter) pin, act as an extra "fail safe" feature in critical applications. Excludes NUT (1), SELF-LOCKING, SLOTTED, HEXAGON. | | |
| NUT (1), SELF-LOCKING, CASTELLATED, OCTAGON | 29726 | BK |
| A nut having 8 flat sides, flat on the bottom and having a slotted cylindrical or dome shaped upper portion. An integral feature is incorporated for locking on the threads of a mating member. The slots, when used in conjunction with a solid or split (cotter) pin, act as an extra fail safe feature in critical applications. Excludes NUT (1), SELF-LOCKING, SLOTTED, OCTAGON. | | |

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| <u>Approved Item Name</u> | <u>INC</u> | <u>App Key</u> |
|---|------------|----------------|
| NUT (1), SELF-LOCKING, CLINCH | 15892 | BN |
| A nut having a sleeve portion on its under side, which can be crimped or clinched to hold the item in place when inserted in a hole. An integral feature is incorporated for locking. | | |
| NUT (1), SELF-LOCKING, CONE SEAT, HEXAGON | 29727 | BP |
| A nut having 6 flat sides and a cone seat bearing surface. Items may have a removable collar. An integral feature is incorporated for locking on the threads of a mating member. See also NUT (1), SELF-LOCKING, SINGLE BALL SEAT, HEXAGON. | | |
| NUT (1), SELF-LOCKING, DOUBLE HEXAGON | 05276 | BK |
| A nut having 12 drive points and 24 sides. The bearing surface may be washer faced. An integral locking feature is incorporated in the design of the head or in the threads. | | |
| NUT (1), SELF-LOCKING, EXTENDED WASHER, DOUBLE HEXAGON | 29729 | BS |
| A nut having 12 drive points, 24 sides, and an integral washer which extends beyond the points or periphery. An integral feature is incorporated for locking on the threads of a mating member. | | |
| NUT (1), SELF-LOCKING, EXTENDED WASHER, HEXAGON | 29730 | BT |
| A nut having 6 flat sides and an integral washer which extends beyond the flats or periphery. An integral feature is incorporated for locking on the threads of a mating member. | | |
| NUT (1), SELF-LOCKING, EXTENDED WASHER, ROUND | 36744 | BS |
| A nut, circular in shape, having wrenching facilities such as flats, holes, protrusions, slots or splines in or on the periphery. It has an integral washer which extends beyond the wrenching element periphery and an integral feature is incorporated for locking on the threads of a mating member. | | |
| NUT (1), SELF-LOCKING, GANG CHANNEL | 01863 | BV |
| A nut having ears or lugs designed to hold it in position after its installation in a specially designed channel. An integral feature is incorporated for locking on the threads of a mating member. | | |
| NUT (1), SELF-LOCKING, HEXAGON | 05277 | BK |
| A nut having a flat bottom and 6 sides. An integral feature is incorporated for locking on the threads of a mating member. Excludes NUT (1), SELF-LOCKING, CAP. | | |

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|---|------------|----------------|
| NUT (1), SELF-LOCKING, INTERNAL WRENCHING | 05284 | BX |
| A cylindrical I-shaped nut, the end opposite the bearing surface being designed with an internal socket or splines for use with an inserted wrench. An integral feature is incorporated for locking on the threads of a mating member. | | |
| NUT (1), SELF-LOCKING, KNURLED | 15894 | BY |
| A nut round in shape, whose outer surface or portion(s) is/are knurled. It may have provisions for external wrenching. An integral feature is incorporated for locking on the threads of a mating member. | | |
| NUT (1), SELF-LOCKING, PLATE | 05280 | BZ |
| A nut with a flanged base of varied shapes which may be plain or mounted by rivets, bolts, welding or integral prongs. An integral feature is incorporated for locking on the threads of a mating member. | | |
| NUT (1), SELF-LOCKING, ROUND | 15895 | CA |
| A nut, circular in shape, which may have wrenching facilities such as flats, holes, protrusions, slots or splines in or on the periphery or in the face opposite the bearing surface. An integral feature is incorporated for locking on the threads of a mating member. Do not use if a more specific item name applies. Excludes COLLAR, PIN-RIVET, THREADED; INSERT, SCREW THREAD; NUT SLEEVE; NUT, PLAIN, CAP; and TURNBUCKLE BODY. | | |
| NUT (1), SELF-LOCKING, SINGLE BALL SEAT, DOUBLE HEXAGON | 33115 | CB |
| A nut having one convex, spherical bearing surface, with 12 drive points, 24 sides. Items may have a removable collar. An integral feature is incorporated for locking on the threads of a mating member. | | |
| NUT (1), SELF-LOCKING, SINGLE BALL SEAT, HEXAGON | 29732 | CB |
| A nut having one convex, spherical bearing surface and 6 flat sides. Items may have a removable collar. An integral feature is incorporated for locking on the threads of a mating member. See also NUT (1), SELF-LOCKING, CONE SEAT, HEXAGON. | | |
| NUT (1), SELF-LOCKING, SLOTTED, HEXAGON | 29733 | BK |
| A nut having a flat bearing surface and 6 flat sides with slots in its upper portion. An integral feature is incorporated for locking on the threads of a mating member. The slots, when used in conjunction with a solid or split (cotter) pin, act as an extra "fail safe" feature in critical applications. Excludes NUT (1), SELF-LOCKING, CASTELLATED, OCTAGON. | | |

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| <u>Approved Item Name</u> | <u>INC</u> | <u>App Key</u> |
|---|------------|----------------|
| NUT (1), SELF-LOCKING, SLOTTED, OCTAGON | 29734 | BK |
| A nut having a flat bearing surface and 8 flat sides with slots in its upper portion. An integral feature is incorporated for locking on the threads of a mating member. The slots when used in conjunction with a solid or split (cotter) pin, act as an extra "fail safe" feature in critical applications. Excludes NUT (1), SELF-LOCKING, CASTELLATED, OCTAGON. | | |
| NUT (1), SELF-LOCKING, SPLINE | 15893 | CE |
| A nut having an externally splined sleeve, which holds it in position when forced into a hole of slightly smaller diameter. An integral feature is incorporated for locking. | | |
| NUT (1), SELF-LOCKING, SQUARE | 05278 | BK |
| A nut having a flat bottom and 4 flat sides. An integral feature is incorporated for locking on the threads of a mating member. Excludes NUT (1), SELF-LOCKING, CAP. | | |
| NUT (1), SELF-LOCKING, WELDING | 16948 | CG |
| A nut with projection(s) that is/are designed to localize heating, during welding, at predetermined points and to fuse with the metal to which the item is mounted. An integral feature is incorporated for locking on the threads of a mating member. | | |
| NUT (1), SELF-LOCKING, WING | 05283 | CH |
| A nut having wings designed for manual turning without driver or wrench with an integral feature incorporated for locking on the threads of a mating member. | | |
| NUT (1), SHEET SPRING | 01865 | CJ |
| A nut formed from sheet spring material, usually steel, into varying flat, concave, bent or curved designs, having apertures with suitable boss or bosses usually on the upper side capable of securely gripping a mating threaded member. Excludes NUT (1), STAMPED. | | |
| NUT (1), SLEEVE | 29735 | CK |
| An internally threaded item with a cylindrical and/or square, hexagonal, octagonal, or dodecagonal outer periphery (parallel to the threaded axis) a portion(s) of which may or may not be enlarged, forming a flange(s) and/or shoulder(s). Items not having an enlarged outer portion may be threaded, a part of the full length, or tapped from both ends. Items having an enlarged outer portion (flange(s) or shoulder(s)) may be threaded the full length, threaded a part of the full length, or tapped from both ends. Items tapped from both ends shall have either right-hand threads on both ends or left-hand threads on both ends. For items conforming to any of the above and having a length overall exceeding two times the largest outside diameter or width across flats, use POST, ELECTRICAL-MECHANICAL EQUIPMENT. For items with an outside contour that is the same the full length, having a continuous thread through its entire length, and the length does not exceed two times the diameter or width across the flats use NUT (1), PLAIN (as modified). Excludes NUT (1), PLAIN, CAP. See also TURNBUCKLE BODY. | | |

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| <u>Approved Item Name</u> | <u>INC</u> | <u>App Key</u> |
|--|------------|----------------|
| NUT (1), SLIP JOINT | 12793 | CY |
| <p>A nut having one female threaded iron pipe size opening and one reduced size nonthreaded opening. It is specifically designed for connecting a nonthreaded end of thin wall tubing to a male threaded pipe or pipe fitting using a compression method consisting of a friction ring and a rubber washer or other equivalent packing. Excludes compression and packing nuts.</p> | | |
| NUT SPACER, PLATE | 17667 | CS |
| <p>An item having two flat bearing surfaces, conforming to the same shape as the base of a NUT (1), PLAIN, PLATE and NUT (1), SELF-LOCKING, PLATE. It is used to provide better alignment in assembly.</p> | | |
| NUT (1), STAMPED | 05279 | CL |
| <p>A nut formed from sheet spring material, usually steel, into various shapes, having the external appearance of a solid nut, and having an aperture with suitable bosses, lugs, notches, and/or slits capable of securely gripping a mating threaded member. See also NUT (1), SHEET SPRING.</p> | | |
| NUT STRIP | 16009 | CT |
| <p>A fastening device of rigid or semirigid material of various shapes and lengths having two or more apertures with lugs or prongs; threaded holes; or nuts. The apertures, threaded holes or nuts may be of any predetermined spacing.</p> | | |
| NUT (1), TUBE COUPLING | 03859 | CX |
| <p>An internally threaded nut which has either an internal seat or shoulder and/or is designed to be used with a ferrule, to mate with the seat of an externally threaded tube fitting to form a leakproof connection. Excludes NUT (1), TUBE COUPLING, REDUCING and NUT (1), UNION.</p> | | |
| NUT (1), TUBE COUPLING, REDUCING | 03860 | CX |
| <p>A tube coupling nut with the shank end accommodating a smaller tube size than is accommodated by the tube fitting which connects to the threaded end.</p> | | |
| NUT (1), UNION | 19964 | DB |
| <p>An internally threaded nut which has an internal seat or shoulder designed to engage the nut retaining flange of a union tailpiece. The threaded portion is used to engage the thread piece of a union, union elbow or the like. Excludes NUT (1), TUBE COUPLING.</p> | | |
| PUSH ON NUT | 05281 | CU |
| <p>An item formed from sheet spring material into varying flat, concave, curved, or nutlike design. It has an aperture with an elliptical-shaped hole or suitable lugs or prongs designed to retain threaded or unthreaded stud-like projecting members. When pushed on, it grips by imbedding into the material of the projecting members, and does not mate with a thread helix. See also RING, RETAINING.</p> | | |

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| <u>Approved Item Name</u> | <u>INC</u> | <u>App Key</u> |
|---------------------------|------------|----------------|
| SEAL NUT, PIPE | 23542 | CV |

A hexagonal nut containing internal tapered pipe threads. It has raised undetachable sealing member on the face of the bearing surface. The item, when installed, provides a method of sealing the connection at the boss or mating surface. It does not provide any method for locking at the connection. See LOCKNUT, PIPE.

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| CQQR | AR |
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| CTTC | AR |
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| MATT | X | X | X | X | X | X | X | X | X | X |
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| SFTT | AR |
| STDC | AR |
| CQFM | X | X | X | X | X | X | X | X | X | X |
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| AASY | AR |
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| AAVM | AR |
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| ABXQ | AR |
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| ACTD | AR |
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| ADBC | AR |
| ADBE | AR |
| ADBG | AR |
| ADBH | AR |
| ADBJ | AR |
| ADBK | AR |
| ADBL | AR |
| ADBN | AR |

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|--------|----|----|----|----|----|----|----|----|----|----|
| ADBP | AR |
| ADBR | AR |
| ADEA | AR |
| ADEB | AR |
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| ADED | AR |
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| AFQN | AR |
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| AGQA | AR |
| AGWM | AR |
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| CFPW | AR |
| CFQB | AR |
| CFQC | AR |
| CQYG | AR |
| CRRB | AR |
| ADBM | AR |
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| ALET | AR |
| AGGP | AR |
| CSPF | AR |
| CQTW | AR |
| CTDD | AR |
| CRTM | | | | | | X | | | | |
| AARN | | X | | | | | | | | |
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| AAWY | AR | AR | AR | AR | | AR | AR | AR | | AR |
| CRSQ | AR | AR | AR | AR | | AR | AR | AR | | AR |
| ABAJ | AR |
| AASK | | | | | X | | | | | |
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| AASU | | | | | AR | | | | | |
| AASW | | | | | AR | | | | | |
| AAZG | | | | | AR | | | | | |
| AAZH | | | | | AR | | | | | |

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| CSLM | | | | | AR | | | | | |
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| CBBL | AR |
| FEAT | AR |
| TEST | AR |
| SPCL | AR |
| ZZZK | AR |
| ZZZT | AR |
| ZZZW | AR |
| ZZZX | AR |
| ZZZY | AR |
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| ELRN | AR |
| ELCD | AR |
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| UKBF # | AR |
| UKCA # | AR |
| SUPP | AR |
| ZZZP | AR |
| AGAV | AR |
| CXCY | AR |
| HZRD | AR |

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| AAJE | AR |
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| ABXQ | AR |
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| ACTD | AR |
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| ADBP | AR |
| ADBR | AR |
| ADEA | AR |
| ADEB | AR |
| ADEC | AR |

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| ADEF | AR |
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| ADEK | AR |
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| CFQB | AR |
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| ADFT | | | | | AR | | | | | |

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| ELRN | AR |
| ELCD | AR |
| PRMT | AR |
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| CSXL | AR |
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| UKCA # | AR |
| SUPP | AR |
| ZZZP | AR |
| AGAV | AR |
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| CTTC | AR |
| AAJE | AR |
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| ABKK | AR |
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| ABPX | AR |
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| ABXQ | AR |
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| ACTD | AR |
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| ADBP | AR |
| ADBR | AR |
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| ADEB | AR |
| ADEC | AR |

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| ADEG | AR |
| ADEK | AR |
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| CFQC | AR |
| CQYG | AR |
| CRRB | AR |
| ADBM | AR |
| ADEH | AR |
| CJLK | AR |
| CZGH # | AR |
| ADEY | | | | X | | | | | | |
| CRHC | AR |
| ALET | AR |
| AGGP | AR |
| CSPF | AR |
| CQTW | AR |
| CTDD | AR |
| CRTM | | | | X | | | | | | |
| AAUM | | X | X | X | X | X | X | X | X | X |
| AARN | X | | | | | | | | | |
| ADFK | AR |
| AAWY | AR |
| CRSQ | AR |
| ABAJ | AR |
| AASK | | | | X | | | | | | |
| AASL | | | | AR | | | | | | |
| AAST | | | | AR | | | | | | |
| AASU | | | | AR | | | | | | |
| AASW | | | | AR | | | | | | |
| AAZG | | | | AR | | | | | | |
| AAZH | | | | AR | | | | | | |
| ADFL | | | | AR | | | | | | |
| CFMR | | | | AR | | | | | | |
| CRKK | | | | AR | | | | | | |
| CSLM | | | | AR | | | | | | |

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GENERAL INFORMATION
APPLICABILITY KEY INDEX

| | | | | | | | | | | |
|--------|----|----|----|----|----|----|----|----|----|----|
| CTPW | | | | AR | | | | | | |
| ADFN | | | | X | | | | | | |
| AZKQ | X | X | X | X | X | X | X | X | X | X |
| UKAS # | AR |
| CBBL | AR |
| FEAT | AR |
| TEST | AR |
| SPCL | AR |
| ZZZK | AR |
| ZZZT | AR |
| ZZZW | AR |
| ZZZX | AR |
| ZZZY | AR |
| CRTL | AR |
| PRPY | AR |
| ELRN | AR |
| ELCD | AR |
| PRMT | AR |
| PMWT | AR |
| PMLC | AR |
| CSXL | AR |
| ABQR # | AR |
| UKBD # | AR |
| UKBF # | AR |
| UKCA # | AR |
| SUPP | AR |
| ZZZP | AR |
| AGAV | AR |
| CXCY | AR |
| HZRD | AR |

FIIG A021A
GENERAL INFORMATION
APPLICABILITY KEY INDEX

| | <u>BX</u> | <u>BY</u> | <u>BZ</u> | <u>CA</u> | <u>CB</u> | <u>CE</u> | <u>CG</u> | <u>CH</u> | <u>CJ</u> | <u>CK</u> |
|------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| NAME | X | X | X | X | X | X | X | X | X | X |
| BZRR | X | X | X | X | X | X | X | X | | X |
| CQJX | X | X | X | X | X | X | X | X | | X |
| CMLP | AR | | AR |
| CQQR | AR | | AR |
| AAJD | AR | | AR |
| CTTC | AR | | AR |
| AAJE | AR | | AR |
| AAJF | X | X | X | X | X | X | X | X | | X |
| ACSZ | | | | | | | | | X | |
| MATT | X | X | X | X | X | X | X | X | X | X |
| MDCL | AR |
| SFTT | AR |
| STDC | AR |
| CQFM | X | X | X | X | X | X | X | X | | X |
| ACTA | X | X | X | X | X | X | X | X | X | X |
| AASA | AR |
| AASY | AR |
| AAVL | AR |
| AAVM | AR |
| AAVX | AR |
| AAXF | AR |
| ABGB | AR |
| ABHC | AR |
| ABKK | AR |
| ABKU | AR |
| ABKW | AR |
| ABNK | AR |
| ABPH | AR |
| ABPM | AR |
| ABPX | AR |
| ABQU | AR |
| ABXQ | AR |
| ACTC | AR |
| ACTD | AR |
| ACUU | AR |
| ACVN | AR |
| ACYB | AR |
| ADAZ | AR |
| ADBA | AR |
| ADBB | AR |
| ADBC | AR |
| ADBE | AR |
| ADBG | AR |
| ADBH | AR |
| ADBJ | AR |
| ADBK | AR |
| ADBL | AR |
| ADBN | AR |
| ADBP | AR |
| ADBR | AR |
| ADEA | AR |
| ADEB | AR |

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GENERAL INFORMATION
APPLICABILITY KEY INDEX

| | | | | | | | | | | |
|--------|----|----|----|----|----|----|----|----|----|----|
| ADEC | AR |
| ADED | AR |
| ADEE | AR |
| ADEF | AR |
| ADEG | AR |
| ADEK | AR |
| ADEM | AR |
| ADEN | AR |
| ADEP | AR |
| ADEQ | AR |
| AFGF | AR |
| AFGG | AR |
| AFGH | AR |
| AFGJ | AR |
| AFMV | AR |
| AFQN | AR |
| AGFF | AR |
| AGQA | AR |
| AGWM | AR |
| ASDB | AR |
| AYTY | AR |
| BRQL | AR |
| BSPX | AR |
| CFPT | AR |
| CFPW | AR |
| CFQB | AR |
| CFQC | AR |
| CQYG | AR |
| CRRB | AR |
| ADBM | AR |
| ADEH | AR |
| CJLK | AR |
| CZGH # | AR |
| CRHC | AR |
| ALET | AR |
| AGGP | AR |
| CSPF | AR |
| CQTW | AR |
| CTDD | AR |
| ADFD | | | AR | | | | | | | |
| ADNC | | | AR | | | | | | | |
| AAUM | X | X | X | X | X | X | X | X | | |
| AARN | | | | | | | | X | | |
| ADFK | AR | AR | AR | AR | | AR | AR | AR | | AR |
| AAWY | AR | AR | AR | AR | | AR | AR | AR | | AR |
| CRSQ | AR | AR | AR | AR | | AR | AR | AR | | AR |
| ABAJ | AR |
| ANLR | | | | | | | | | | X |
| ABQZ | X | | | | | | | | | |
| AATB | AR | | | | | | | | | |
| AAUH | AR | | | | | | | | | |
| AAUJ | AR | | | | | | | | | |
| AAUK | AR | | | | | | | | | |
| ABSA | AR | | | | | | | | | |
| ADFP | | | AR | | | | | | AR | |
| CSSM | | | AR | | | | | | AR | |
| ADFR | | | AR | | | | | | AR | |

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GENERAL INFORMATION
APPLICABILITY KEY INDEX

| | | | | | | | | | | |
|--------|----|----|----|----|----|----|----|----|----|----|
| AAWS | | | AR | | | | | | | AR |
| ADFS | | | AR | | | | | | | AR |
| ADFT | | | AR | | | | | | | AR |
| ADFU | | | AR | | | | | | | AR |
| ABTB | | | AR | | | | | | | AR |
| ABTD | | | AR | | | | | | | AR |
| ABVG | | | AR | | | | | | | AR |
| ADVV | | | AR | | | | | | | AR |
| ADFW | | | AR | | | | | | | AR |
| ADFX | | | AR | | | | | | | AR |
| ADFY | | | AR | | | | | | | AR |
| AZKQ | X | X | X | X | X | X | X | X | | X |
| ABFF | | | AR | | | | | | | |
| UKAS # | AR |
| CBBL | AR |
| FEAT | AR |
| TEST | AR |
| SPCL | AR |
| ZZZK | AR |
| ZZZT | AR |
| ZZZW | AR |
| ZZZX | AR |
| ZZZY | AR |
| CRTL | AR |
| PRPY | AR |
| ELRN | AR |
| ELCD | AR |
| PRMT | AR |
| PMWT | AR |
| PMLC | AR |
| CSXL | AR |
| ABQR # | AR |
| UKBD # | AR |
| UKBF # | AR |
| UKCA # | AR |
| SUPP | AR |
| ZZZP | AR |
| AGAV | AR |
| CXCY | AR |
| HZRD | AR |

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GENERAL INFORMATION
APPLICABILITY KEY INDEX

| | <u>CL</u> | <u>CM</u> | <u>CN</u> | <u>CO</u> | <u>CR</u> | <u>CS</u> | <u>CT</u> | <u>CU</u> | <u>CV</u> | <u>CW</u> |
|------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| NAME | X | X | X | X | X | X | X | X | X | X |
| BZRR | | X | AR | X | | | AR | | X | X |
| CQJX | | X | AR | X | | | AR | | X | X |
| CMLP | | AR | AR | AR | | | AR | | AR | AR |
| CQQR | | AR | AR | AR | | | AR | | AR | AR |
| AAJD | | AR | AR | AR | | | AR | | AR | AR |
| CTTC | | AR | AR | AR | | | AR | | AR | AR |
| AAJE | | AR | AR | AR | | | AR | | AR | AR |
| AAJF | | X | AR | X | | | AR | | X | X |
| ACSZ | X | | AR | | AR | | AR | X | | |
| MATT | X | X | X | X | X | X | X | X | X | X |
| MDCL | AR |
| SFTT | AR |
| STDC | AR |
| CQFM | | X | | X | | | | | | |
| ACTA | X | X | X | X | X | X | X | X | X | X |
| AASA | AR |
| AASY | AR |
| AAVL | AR |
| AAVM | AR |
| AAVX | AR |
| AAXF | AR |
| ABGB | AR |
| ABHC | AR |
| ABKK | AR |
| ABKU | AR |
| ABKW | AR |
| ABNK | AR |
| ABPH | AR |
| ABPM | AR |
| ABPX | AR |
| ABQU | AR |
| ABXQ | AR |
| ACTC | AR |
| ACTD | AR |
| ACUU | AR |
| ACVN | AR |
| ACYB | AR |
| ADAZ | AR |
| ADBA | AR |
| ADBB | AR |
| ADBC | AR |
| ADBE | AR |
| ADBG | AR |
| ADBH | AR |
| ADBJ | AR |
| ADBK | AR |
| ADBL | AR |
| ADBN | AR |
| ADBP | AR |
| ADBR | AR |
| ADEA | AR |
| ADEB | AR |

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GENERAL INFORMATION
APPLICABILITY KEY INDEX

| | | | | | | | | | | |
|--------|----|----|----|----|----|----|----|----|----|----|
| ADEC | AR |
| ADED | AR |
| ADEE | AR |
| ADEF | AR |
| ADEG | AR |
| ADEK | AR |
| ADEM | AR |
| ADEN | AR |
| ADEP | AR |
| ADEQ | AR |
| AFGF | AR |
| AFGG | AR |
| AFGH | AR |
| AFGJ | AR |
| AFMV | AR |
| AFQN | AR |
| AGFF | AR |
| AGQA | AR |
| AGWM | AR |
| ASDB | AR |
| AYTY | AR |
| BRQL | AR |
| BSPX | AR |
| CFPT | AR |
| CFPW | AR |
| CFQB | AR |
| CFQC | AR |
| CQYG | AR |
| CRRB | AR |
| ADBM | AR |
| ADEH | AR |
| CJLK | AR |
| CZGH # | AR |
| ADER | | | X | | | | | | | |
| AARX | | | AR | | | | | | | |
| ABGL | | | AR | | | | | | | |
| ABKG | | | AR | | | | | | | |
| ABNM | | | AR | | | | | | | |
| ABRY | | | AR | | | | | | | |
| ACTD | | | AR | | | | | | | |
| ADEA | | | AR | | | | | | | |
| ADEV | | | AR | | | | | | | |
| ADEW | | | AR | | | | | | | |
| ADEX | | | AR | | | | | | | |
| AJSE | | | AR | | | | | | | |
| CSGH | | | AR | | | | | | | |
| CQZF | | | AR | | | | | | | |
| CRHC | AR |
| ALET | AR |
| AGGP | AR |
| CSPF | AR |
| CQTW | AR |
| CTDD | AR |
| ADFD | | | | AR | | | | | | |
| ADNC | | | | AR | | | | | | |
| AAUM | | AR | | X | | | | | | |
| AARN | | | | | | | | | AR | |

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GENERAL INFORMATION
APPLICABILITY KEY INDEX

| | <u>CX</u> | <u>CY</u> | <u>DB</u> | <u>DC</u> | <u>DE</u> | <u>DF</u> |
|------|-----------|-----------|-----------|-----------|-----------|-----------|
| NAME | X | X | X | X | X | X |
| BZRR | X | X | X | X | X | X |
| CQJX | X | X | X | X | X | X |
| CMLP | AR | AR | AR | AR | AR | AR |
| CQQR | AR | AR | AR | AR | AR | AR |
| AAJD | AR | AR | AR | AR | AR | AR |
| CTTC | AR | AR | AR | AR | AR | AR |
| AAJE | AR | AR | AR | AR | AR | AR |
| AAJF | X | X | X | X | X | X |
| MATT | X | X | X | X | X | X |
| MDCL | AR | AR | AR | AR | AR | AR |
| SFTT | AR | AR | AR | AR | AR | AR |
| STDC | AR | AR | AR | AR | AR | AR |
| CQFM | | X | X | X | | X |
| ACTA | X | X | X | X | | X |
| AASA | AR | AR | AR | AR | | AR |
| AASY | AR | AR | AR | AR | | AR |
| AAVL | AR | AR | AR | AR | | AR |
| AAVM | AR | AR | AR | AR | | AR |
| AAVX | AR | AR | AR | AR | | AR |
| AAXF | AR | AR | AR | AR | | AR |
| ABGB | AR | AR | AR | AR | | AR |
| ABHC | AR | AR | AR | AR | | AR |
| ABKK | AR | AR | AR | AR | | AR |
| ABKU | AR | AR | AR | AR | | AR |
| ABKW | AR | AR | AR | AR | | AR |
| ABNK | AR | AR | AR | AR | | AR |
| ABPH | AR | AR | AR | AR | | AR |
| ABPM | AR | AR | AR | AR | | AR |
| ABPX | AR | AR | AR | AR | | AR |
| ABQU | AR | AR | AR | AR | | AR |
| ABXQ | AR | AR | AR | AR | | AR |
| ACTC | AR | AR | AR | AR | | AR |
| ACTD | AR | AR | AR | AR | | AR |
| ACUU | AR | AR | AR | AR | | AR |
| ACVN | AR | AR | AR | AR | | AR |
| ACYB | AR | AR | AR | AR | | AR |
| ADAZ | AR | AR | AR | AR | | AR |
| ADBA | AR | AR | AR | AR | | AR |
| ADBB | AR | AR | AR | AR | | AR |
| ADBC | AR | AR | AR | AR | | AR |
| ADBE | AR | AR | AR | AR | | AR |
| ADBG | AR | AR | AR | AR | | AR |
| ADBH | AR | AR | AR | AR | | AR |
| ADBJ | AR | AR | AR | AR | | AR |
| ADBK | AR | AR | AR | AR | | AR |
| ADBL | AR | AR | AR | AR | | AR |
| ADBN | AR | AR | AR | AR | | AR |
| ADBP | AR | AR | AR | AR | | AR |
| ADBR | AR | AR | AR | AR | | AR |
| ADEA | AR | AR | AR | AR | | AR |
| ADEB | AR | AR | AR | AR | | AR |
| ADEC | AR | AR | AR | AR | | AR |

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GENERAL INFORMATION
APPLICABILITY KEY INDEX

| | | | | | |
|--------|----|----|----|----|----|
| ADED | AR | AR | AR | AR | AR |
| ADEE | AR | AR | AR | AR | AR |
| ADEF | AR | AR | AR | AR | AR |
| ADEG | AR | AR | AR | AR | AR |
| ADEK | AR | AR | AR | AR | AR |
| ADEM | AR | AR | AR | AR | AR |
| ADEN | AR | AR | AR | AR | AR |
| ADEP | AR | AR | AR | AR | AR |
| ADEQ | AR | AR | AR | AR | AR |
| AFGF | AR | AR | AR | AR | AR |
| AFGG | AR | AR | AR | AR | AR |
| AFGH | AR | AR | AR | AR | AR |
| AFGJ | AR | AR | AR | AR | AR |
| AFMV | AR | AR | AR | AR | AR |
| AFQN | AR | AR | AR | AR | AR |
| AGFF | AR | AR | AR | AR | AR |
| AGQA | AR | AR | AR | AR | AR |
| AGWM | AR | AR | AR | AR | AR |
| ASDB | AR | AR | AR | AR | AR |
| AYTY | AR | AR | AR | AR | AR |
| BRQL | AR | AR | AR | AR | AR |
| BSPX | AR | AR | AR | AR | AR |
| CFPT | AR | AR | AR | AR | AR |
| CFPW | AR | AR | AR | AR | AR |
| CFQB | AR | AR | AR | AR | AR |
| CFQC | AR | AR | AR | AR | AR |
| CQYG | AR | AR | AR | AR | AR |
| CRRB | AR | AR | AR | AR | AR |
| ADBM | AR | AR | AR | AR | AR |
| ADEH | AR | AR | AR | AR | AR |
| CJLK | AR | AR | AR | AR | AR |
| CZGH # | AR | AR | AR | AR | AR |
| ADER | | | | X | X |
| AARX | | | | AR | AR |
| ABGL | | | | AR | AR |
| ABKG | | | | AR | AR |
| ABNM | | | | AR | AR |
| ABRY | | | | AR | AR |
| ACTD | | | | AR | AR |
| ADEA | | | | AR | AR |
| ADEV | | | | AR | AR |
| ADEW | | | | AR | AR |
| ADEX | | | | AR | AR |
| AJSE | | | | AR | AR |
| CSGH | | | | AR | AR |
| CQZF | | | | AR | AR |
| CRHC | AR | AR | AR | AR | |
| ALET | AR | AR | AR | AR | |
| AGGP | AR | AR | AR | AR | |
| CSPF | AR | AR | AR | AR | |
| CQTW | AR | AR | AR | AR | |
| CTDD | AR | AR | AR | AR | |
| AAUM | | | | | X |
| AARN | X | | | | |
| AZXC | | | | | X |
| ADFK | | AR | AR | AR | AR |
| AAWY | | AR | AR | AR | AR |

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GENERAL INFORMATION
APPLICABILITY KEY INDEX

| | | | | | | |
|--------|----|----|----|----|----|----|
| CRSQ | | AR | AR | AR | | AR |
| ABAJ | AR | AR | AR | AR | AR | |
| AAGN | | X | | | | |
| CWLP # | | X | | | | |
| CQRJ | X | X | | | | |
| AYKC | | | | X | | |
| CWMC # | | | | X | | |
| AZKQ | | X | X | X | | X |
| ABFF | | AR | | | | |
| CRPK | | | X | | | |
| UKAS # | AR | AR | AR | AR | AR | AR |
| CBBL | AR | AR | AR | AR | AR | AR |
| FEAT | AR | AR | AR | AR | AR | AR |
| TEST | AR | AR | AR | AR | AR | AR |
| SPCL | AR | AR | AR | AR | AR | AR |
| ZZZK | AR | AR | AR | AR | AR | AR |
| ZZZT | AR | AR | AR | AR | AR | AR |
| ZZZW | AR | AR | AR | AR | AR | AR |
| ZZZX | AR | AR | AR | AR | AR | AR |
| ZZZY | AR | AR | AR | AR | AR | AR |
| CRTL | AR | AR | AR | AR | AR | AR |
| PRPY | AR | AR | AR | AR | AR | AR |
| ELRN | AR | AR | AR | AR | AR | AR |
| ELCD | AR | AR | AR | AR | AR | AR |
| PRMT | AR | AR | AR | AR | AR | AR |
| PMWT | AR | AR | AR | AR | AR | AR |
| PMLC | AR | AR | AR | AR | AR | AR |
| CSXL | AR | AR | AR | AR | AR | AR |
| ABQR # | AR | AR | AR | AR | AR | AR |
| UKBD # | AR | AR | AR | AR | AR | AR |
| UKBF # | AR | AR | AR | AR | AR | AR |
| UKCA # | AR | AR | AR | AR | AR | AR |
| SUPP | AR | AR | AR | AR | AR | AR |
| ZZZP | AR | AR | AR | AR | AR | AR |
| AGAV | AR | AR | AR | AR | AR | AR |
| CXCY | AR | AR | AR | AR | AR | AR |
| HZRD | AR | AR | AR | AR | AR | AR |

SECTION I

| APP Key | MRC | Mode Code | Requirements |
|------------|-----|--------------|--------------|
|------------|-----|--------------|--------------|

ALL

| NAME | D | ITEM NAME |
|------|---|-----------|
|------|---|-----------|

Definition: A NOUN, WITH OR WITHOUT MODIFIERS, BY WHICH AN ITEM OF SUPPLY IS KNOWN.

Reply Instructions: Enter the applicable Item Name Code from the index appearing in the General Information Section. (e.g., NAMED21824*)

AA, AC, AD, AE, AF, AG, AK, AL, AN, AP, AQ, AT, AU, AV, AW, AX, AY, AZ, BC, BE, BF, BG, BH, BJ, BK, BN, BP, BS, BT, BV, BX, BY, BZ, CA, CB, CE, CG, CH, CK, CM, CN*, CQ, CT*, CV, CW, CX, CY, DB, DC, DE, DF

| BZRR | D | THREAD SERIES |
|------|---|---------------|
|------|---|---------------|

Definition: A DESIGNATION INDICATING THE DIAMETER-PITCH COMBINATION AND THE NUMBER OF THREADS PER MEASUREMENT SCALE APPLIED TO A SERIES OF DIAMETERS.

Reply Instructions: Enter the applicable Reply Code from [Appendix A](#), Table 5. (e.g., BZRRDNC*; BZRRDSM*)

AA, AC, AD, AE, AF, AG, AK, AL, AN, AP, AQ, AT, AU, AV, AW, AX, AY, AZ, BC, BE, BF, BG, BH, BJ, BK, BN, BP, BS, BT, BV, BX, BY, BZ, CA, CB, CE, CG, CH, CK, CM, CN*, CQ, CT*, CV, CW, CX, CY, DB, DC, DE, DF

| CQJX | J | NOMINAL THREAD SIZE |
|------|---|---------------------|
|------|---|---------------------|

Definition: A DESIGNATION THAT IS USED FOR THE PURPOSE OF GENERAL IDENTIFICATION OF THE THREAD.

Reply Instructions: Enter the applicable Reply Code from the table below, followed by the numeric value. (e.g., CQJXJA0.250*; CQJXJL6.3*)

| <u>REPLY CODE</u> | <u>REPLY (AA05)</u> |
|-------------------|---------------------|
| A | INCHES |
| L | MILLIMETERS |

FIIG A021A
SECTION I

| APP Key | MRC | Mode Code | Requirements |
|------------|-----|--------------|--------------|
|------------|-----|--------------|--------------|

NOTE FOR MRCS CMLP AND CQQR: REPLY TO MRC CMLP IF REPLY CODE A IS ENTERED FOR MRC CQJX. REPLY TO MRC CQQR IF REPLY CODE L IS ENTERED FOR MRC CQJX.

AA*, AC*, AD*, AE*, AF*, AG*, AK*, AL*, AN*, AP*, AQ*, AT*, AU*, AV*, AW*, AX*, AY*, AZ*, BC*, BE*, BF*, BG*, BH*, BJ*, BK*, BN*, BP*, BS*, BT*, BV*, BX*, BY*, BZ*, CA*, CB*, CE*, CG*, CH*, CK*, CM*, CN*, CQ*, CT*, CV*, CW*, CX*, CY*, DB*, DC*, DE*, DF* (See Note Above)

CMLP A THREAD QUANTITY PER INCH

Definition: THE NUMBER OF THREADS ON THE ITEM PER LINEAR INCH MEASURED ON A LINE PARALLEL TO THE THREAD AXIS.

Reply Instructions: Enter the numeric value.

(e.g., CMLPA20*; CMLPA4-1/2*)

AA*, AC*, AD*, AE*, AF*, AG*, AK*, AL*, AN*, AP*, AQ*, AT*, AU*, AV*, AW*, AX*, AY*, AZ*, BC*, BE*, BF*, BG*, BH*, BJ*, BK*, BN*, BP*, BS*, BT*, BV*, BX*, BY*, BZ*, CA*, CB*, CE*, CG*, CH*, CK*, CM*, CN*, CQ*, CT*, CV*, CW*, CX*, CY*, DB*, DC*, DE*, DF* (See Note Preceding MRC CMLP)

CQQR B THREAD PITCH IN MILLIMETERS

Definition: A MEASUREMENT OF DISTANCE BETWEEN CORRESPONDING POINTS ON TWO ADJACENT THREADS MEASURED PARALLEL TO THE THREAD AXIS, EXPRESSED IN MILLIMETERS.

Reply Instructions: Enter the numeric value. (e.g., CQQRB0.75*)

NOTE FOR MRCS AAJD, CTTC, AND AAJE: REPLY TO MRC CTTC OR AAJE IF REPLY CODE BT OR SM IS ENTERED IN REPLY TO MRC BZRR. REPLY TO MRC AAJD, CTTC, OR AAJE IF REPLY TO MRC BZRR IS OTHER THAN REPLY CODE BA, NM, NP, PM, PS, SF, SH, SL, SP, OR SQ.

AA*, AC*, AD*, AE*, AF*, AG*, AK*, AL*, AN*, AP*, AQ*, AT*, AU*, AV*, AW*, AX*, AY*, AZ*, BC*, BE*, BF*, BG*, BH*, BJ*, BK*, BN*, BP*, BS*, BT*, BV*, BX*, BY*, BZ*, CA*, CB*, CE*, CG*, CH*, CK*, CM*, CN*, CQ*, CT*, CV*, CW*, CX*, CY*, DB*, DC*, DE*, DF* (See Note Above)

AAJD A THREAD CLASS

Definition: A NUMERIC-ALPHA DESIGNATOR INDICATING THE PITCH DIAMETER TOLERANCE AND AN EXTERNAL OR INTERNAL THREAD.

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| | | | |
|-----|-----|------|--------------|
| APP | | Mode | |
| Key | MRC | Code | Requirements |

Reply Instructions: Enter the thread class. (e.g., AAJDA2B*; AAJDAMEDIUM*)

When the source document specifies a maximum and minimum pitch diameter identical to or within the limits of a standard class of thread, reply with the standard class of thread. All classes of fit should be reflected by similar class of thread; i.e., Class 1 fit as 1B thread class.

AA*, AC*, AD*, AE*, AF*, AG*, AK*, AL*, AN*, AP*, AQ*, AT*, AU*, AV*, AW*, AX*, AY*, AZ*, BC*, BE*, BF*, BG*, BH*, BJ*, BK*, BN*, BP*, BS*, BT*, BV*, BX*, BY*, BZ*, CA*, CB*, CE*, CG*, CH*, CK*, CM*, CN*, CQ*, CT*, CV*, CW*, CX*, CY*, DB*, DC*, DE*, DF* (See Note Preceding MRC AAJD)

CTTC J THREAD TOLERANCE CLASS

Definition: A NUMERIC-ALPHA DESIGNATOR INDICATING ESTABLISHED PITCH AND CREST DIAMETER TOLERANCE POSITION AND GRADE.

Reply Instructions: Enter the applicable Reply Code from the table below, followed by the designator. (e.g., CTTCJNTE4H6H*)

When the pitch and crest diameter tolerances are identical, i.e., M6X1-6H6H, enter the designation once. (e.g., CTTCJNTE6H*)

| | |
|-------------------|---------------------|
| <u>REPLY CODE</u> | <u>REPLY (AN73)</u> |
| EXT | EXTERNAL |
| NTE | INTERNAL |

AA*, AC*, AD*, AE*, AF*, AG*, AK*, AL*, AN*, AP*, AQ*, AT*, AU*, AV*, AW*, AX*, AY*, AZ*, BC*, BE*, BF*, BG*, BH*, BJ*, BK*, BN*, BP*, BS*, BT*, BV*, BX*, BY*, BZ*, CA*, CB*, CE*, CG*, CH*, CK*, CM*, CN*, CQ*, CT*, CV*, CW*, CX*, CY*, DB*, DC*, DE*, DF* (See Note Preceding MRC AAJD)

AAJE J THREAD PITCH DIAMETERS

Definition: THE MINIMUM AND MAXIMUM PITCH DIAMETER LIMITS OF A STRAIGHT SCREW THREAD.

Reply Instructions: Enter the applicable Reply Code from the table below, followed by the numeric values, separated by a slash. Precede all values with a P. (e.g., AAJEJAP0.2157/P0.2190*; AAJEJLP5.3/P5.5*)

| | |
|-------------------|---------------------|
| <u>REPLY CODE</u> | <u>REPLY (AA05)</u> |
| A | INCHES |

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| APP Key | MRC | Mode Code | Requirements |
|------------|-----|--------------|--------------|
|------------|-----|--------------|--------------|

NOTE FOR MRCS MATT, MDCL, SFTT, AND STDC: SEE APPENDIX C, TABLE 3 FOR CLARIFICATION OF TERMS AND RECORDING INSTRUCTIONS FOR MRCS MATT, MDCL, SFTT, AND STDC.

ALL (See Note Above)

| | | |
|------|---|----------|
| MATT | D | MATERIAL |
|------|---|----------|

Definition: THE CHEMICAL COMPOUND OR MECHANICAL MIXTURE PROPERTIES OF WHICH THE ITEM IS FABRICATED.

Reply Instructions: Enter the applicable I/SAC from Appendix C, Table 4, followed by the Mode Code and the applicable Reply Code from [Appendix A](#), Table 1. (e.g., MATT2AADALA000*; MATT2AADS TB000\$\$DST1012*; MATT2AADS TB000\$DST1012*)

ALL * (See Note Preceding MRC MATT)

| | | |
|------|---|--------------------------------------|
| MDCL | J | MATERIAL DOCUMENT AND CLASSIFICATION |
|------|---|--------------------------------------|

Definition: THE SPECIFICATION, STANDARD, OR MANUFACTURERS REFERENCE, AND THE CLASSIFICATION DESIGNATION, SUCH AS CLASS, CONDITION, TEMPER, AND THE LIKE, THAT IDENTIFIES THE MATERIAL.

Reply Instructions: Enter the applicable I/SAC from [Appendix C](#), Table 4, followed by the Mode Code and the applicable Reply Codes from Tables 1 and 2 below, and the document designator and classification.

(e.g., MDCL2AAJBAQQ-A-591, T6*;

MDCL2AAJBBQQ-S-624\$JBCQQ-S-624, COND C4*;

MDCL2AHJDBMIL-S-16974\$\$JGAMS 3620*;

MDCL2AQJDCMIL-S-6758, COND C4*)

Table 1

| <u>REPLY CODE</u> | <u>REPLY (AP33)</u> |
|-------------------|---------------------|
| G | ASSN STD |
| B | FED SPEC |
| C | FED STD |
| F | MFR REF |
| D | MIL SPEC |
| E | MIL STD |
| H | NATIONAL SPEC |
| M | NATIONAL STD/SPEC |

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SECTION I

| APP Key | MRC | Mode Code | Requirements |
|------------|-----|--------------|--------------|
|------------|-----|--------------|--------------|

Table 2

REPLY
CODE

REPLY (AP18)

| | |
|---|--|
| G | ALL MATERIAL RESPONSES (use only when all material is controlled by the same document and classifications are identical) |
| A | SINGLE MATERIAL RESPONSE |
| B | 1ST MATERIAL RESPONSE |
| C | 2ND MATERIAL RESPONSE |
| D | 3RD MATERIAL RESPONSE |
| E | 4TH MATERIAL RESPONSE |
| F | 5TH MATERIAL RESPONSE |
| H | 6TH MATERIAL RESPONSE |
| J | 7TH MATERIAL RESPONSE |
| K | 8TH MATERIAL RESPONSE |
| L | 9TH MATERIAL RESPONSE |
| M | 10TH MATERIAL RESPONSE |
| N | 11TH MATERIAL RESPONSE |
| P | 12TH MATERIAL RESPONSE |
| Q | 13TH MATERIAL RESPONSE |
| R | 14TH MATERIAL RESPONSE |
| S | 15TH MATERIAL RESPONSE |

ALL * (See Note Preceding MRC MATT)

SFTT D SURFACE TREATMENT

Definition: THE METALLIC, NONMETALLIC, AND/OR CHEMICAL PROPERTIES WITH WHICH THE ITEM IS PLATED, DIPPED, AND/OR COATED. THE TREATMENT IS DESIGNED TO PROTECT THE SURFACE(S) AND CANNOT BE WIPED OFF.

Reply Instructions: Enter the applicable I/SAC from Appendix C, Table 4, followed by the Mode Code and the applicable Reply Code from [Appendix A](#), Table 2. (e.g., SFTT2AADANA000*; SFTT2AADANA000\$DCDA000*; SFTT2AADLQA000\$DXXB000*)

ALL * (See Note Preceding MRC MATT)

STDC J SURFACE TREATMENT DOCUMENT AND CLASSIFICATION

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SECTION I

| | | | |
|------------|-----|--------------|--------------|
| APP Key | MRC | Mode Code | Requirements |
|------------|-----|--------------|--------------|

Definition: THE SPECIFICATION, STANDARD, OR MANUFACTURERS REFERENCE, AND THE CLASSIFICATION DESIGNATION, SUCH AS TYPE, CLASS, GRADE, AND THE LIKE, THAT IDENTIFIES THE SURFACE TREATMENT MATERIAL.

Reply Instructions: Enter the applicable I/SAC from [Appendix C](#), Table 4, followed by the Mode Code, the applicable Reply Codes from Tables 1 and 2 below and the document designator and classification.

(e.g., STDC2AAJDAMIL-A-8625, TYPE 1, CLASS 2*;

STDC2AAJDBMIL-A-8625, TYPE 1, CLASS 1\$JDCMIL-A-8625, TYPE 1, CLASS 2*;

STDC2AHJBBQQ-P-416, TYPE 1, CLASS 1*;

STDC2AQJBCQQ-C-320, CLASS 2*;

STDC2AAJDBMIL-A-8625, TYPE 1, CLASS 1\$\$JBCQQ-P-416, TYPE 1, CLASS 2*)

Table 1

| <u>REPLY CODE</u> | <u>REPLY (AP33)</u> |
|-------------------|---------------------|
| G | ASSN STD |
| B | FED SPEC |
| C | FED STD |
| F | MFR REF |
| D | MIL SPEC |
| E | MIL STD |
| H | NATIONAL SPEC |
| M | NATIONAL STD/SPEC |

Table 2

| <u>REPLY CODE</u> | <u>REPLY (AP39)</u> |
|-------------------|---|
| G | ALL TREATMENT RESPONSES (use only when all material is controlled by the same document and classifications are identical) |
| A | SINGLE TREATMENT RESPONSE |
| B | 1ST TREATMENT RESPONSE |
| C | 2ND TREATMENT RESPONSE |
| D | 3RD TREATMENT RESPONSE |
| E | 4TH TREATMENT RESPONSE |
| F | 5TH TREATMENT RESPONSE |
| H | 6TH TREATMENT RESPONSE |
| J | 7TH TREATMENT RESPONSE |
| K | 8TH TREATMENT RESPONSE |

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| APP Key | MRC | Mode Code | Requirements |
|---------|-----|-----------|-------------------------|
| | | L | 9TH TREATMENT RESPONSE |
| | | M | 10TH TREATMENT RESPONSE |
| | | N | 11TH TREATMENT RESPONSE |
| | | P | 12TH TREATMENT RESPONSE |
| | | Q | 13TH TREATMENT RESPONSE |
| | | R | 14TH TREATMENT RESPONSE |
| | | S | 15TH TREATMENT RESPONSE |

AA, AC, AD, AE, AF, AG, AK, AL, AN, AP, AQ, AT, AU, AV, AW, AX, AY, AZ, BC, BE, BF, BG, BH, BJ, BK, BN, BP, BS, BT, BV, BX, BY, BZ, CA, CB, CE, CG, CH, CK, CM, CQ, CY, DB, DC, DF

CQFM J HARDNESS RATING

Definition: A NUMERIC VALUE THAT REFLECTS THE HARDNESS OF AN ITEM WHEN USED IN CONJUNCTION WITH A HARDNESS RATING SCALE.

Reply Instructions: Enter the applicable Reply Codes from [Appendix A](#), Table 3 and the table below, followed by the numeric value. (e.g., CQFMJRCA55.0*; CQFMJRCA51.0\$\$JRCC60.0*)

For Applicability Key CQ, DF and other floating design type nuts-rating is for the nut only.

To assure consistency in replies, the following rules shall be followed:

If no hardness rating for the item of supply is listed in the specification and/or standard, but the procurement document referenced thereon cites a hardness rating for the finished item of supply, this rating shall be recorded in reply to the hardness rating requirement.

When the material specification lists a hardness rating for the material from which the item is fabricated, this rating shall not be recorded as a reply to the hardness rating requirement since there is frequently a modification during fabrication.

For items that do not require a rating, change the Mode Code to K and enter Reply Code N. (e.g., CQFMKN*)

| <u>REPLY CODE</u> | <u>REPLY (AC20)</u> |
|-------------------|---------------------|
| A | NOMINAL |
| B | MINIMUM |
| C | MAXIMUM |

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| APP Key | MRC | Mode Code | Requirements |
|------------|-----|--------------|--------------|
|------------|-----|--------------|--------------|

AA, AC, AD, AE, AF, AG, AK, AL, AN, AP, AQ, AT, AU, AV, AW, AX, AY, AZ, BC, BE, BF, BG, BH, BJ, BK, BN, BP, BS, BT, BV, BX, BY, BZ, CA, CB, CE, CG, CH, CJ, CK, CL, CM, CN, CQ, CR, CS, CT, CU, CV, CW, CX, CY, DB, DC, DF

ACTA L NUT STYLE

Definition: THE STYLE DESIGNATION INDICATING THE CONFIGURATION THAT MOST NEARLY CORRESPONDS TO THE APPEARANCE OF THE NUT.

Reply Instructions: Enter the group designator and applicable style number from [Appendix B](#), Reference Drawing Group A. (e.g., ACTALA5*)

For Applicability Key CN and DF - reply shall reflect the nut style included in the assembly.

For Applicability CQ - reply shall reflect the nut style included in the assembly but do not reply to dimensional MRC's.

CN, DE, DF

ADER L MOUNTING STYLE

Definition: THE STYLE DESIGNATION INDICATING THE CONFIGURATION THAT MOST NEARLY CORRESPONDS TO THE APPEARANCE OF THE MOUNTING.

Reply Instructions: Enter the group designator and applicable style number from [Appendix B](#), Reference Drawing Group B. (e.g., ADERLB3*)

For Applicability Key DF - reply shall reflect mounting style only - do not reply to dimensional MRCs.

AF, BJ

ADEY J NUT GRIP RANGE

Definition: THE AREA BETWEEN THE MAXIMUM AND MINIMUM THICKNESS OF MATERIAL IN WHICH A SPECIFIC BLIND RIVET NUT CAN BE PROPERLY INSTALLED.

Reply Instructions: Enter the applicable Reply Code from the table below, followed by the numeric values, separated by a slash. Precede each value with a P. (e.g., ADEYJAP0.075/P0.089*; ADEYJLP1.9/P2.3*)

REPLY CODE

REPLY (AA05)

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| APP Key | MRC | Mode Code | Requirements |
|------------|-----|--------------|--------------|
| | | A | INCHES |
| | | L | MILLIMETERS |

NOTE FOR MRC CRHC: FOR ITEMS WITH DRIVE HOLES SUCH AS NUT STYLES 70, 73, and 78, DO NOT REPLY TO MRC CRHC.

AA*, AC*, AD*, AE*, AF*, AG*, AK*, AL*, AN*, AP*, AQ*, AT*, AU*, AV*, AW*, AX*, AY*, AZ*, BC*, BE*, BF*, BG*, BH*, BJ*, BK*, BN*, BP*, BS*, BT*, BV*, BX*, BY*, BZ*, CA*, CB*, CE*, CG*, CH*, CJ*, CK*, CL*, CM*, CN*, CQ*, CR*, CS*, CT*, CU*, CV*, CW*, CX*, CY*, DB*, DC* (See Note Above)

CRHC L HOLE CONFIGURATION STYLE

Definition: THE STYLE DESIGNATION THAT MOST NEARLY CORRESPONDS TO THE APPEARANCE OF THE HOLE CONFIGURATION.

Reply Instructions: Enter the group designator and applicable style number from [Appendix B](#), Reference Drawing Group H. (e.g., CRHCLH5*)

NOTE FOR MRC ALET: A HOLE DRILLED OR TAPPED ALL THE WAY THROUGH AND INTERSECTING THE HOLE THROUGH THE LONGITUDINAL AXIS SHALL BE COUNTED AS 2 HOLES.

AA*, AC*, AD*, AE*, AF*, AG*, AK*, AL*, AN*, AP*, AQ*, AT*, AU*, AV*, AW*, AX*, AY*, AZ*, BC*, BE*, BF*, BG*, BH*, BJ*, BK*, BN*, BP*, BS*, BT*, BV*, BX*, BY*, BZ*, CA*, CB*, CE*, CG*, CH*, CJ*, CK*, CL*, CM*, CN*, CQ*, CR*, CS*, CT*, CU*, CV*, CW*, CX*, CY*, DB*, DC* (See Note Above)

ALET J HOLE TYPE AND QUANTITY

Definition: INDICATES THE TYPE AND NUMBER OF HOLES PROVIDED.

Reply Instructions: Enter the applicable Reply Code from the table below, followed by the quantity. (e.g., ALETJAG4*; ALETJAG2\$\$JAH2*)

| <u>REPLY CODE</u> | <u>REPLY (AH37)</u> |
|-------------------|---------------------|
| AG | DRILLED |
| AH | TAPPED |

NOTE FOR MRCS AGGP AND CSPF: IF REPLY CODE AG IS ENTERED FOR MRC ALET, REPLY TO MRC AGGP. IF REPLY CODE AH IS ENTERED FOR MRC ALET, REPLY TO MRC CSPF.

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| APP Key | MRC | Mode Code | Requirements |
|---------|-----|-----------|--------------|
|---------|-----|-----------|--------------|

AA*, AC*, AD*, AE*, AF*, AG*, AK*, AL*, AN*, AP*, AQ*, AT*, AU*, AV*, AW*, AX*, AY*, AZ*, BC*, BE*, BF*, BG*, BH*, BJ*, BK*, BN*, BP*, BS*, BT*, BV*, BX*, BY*, BZ*, CA*, CB*, CE*, CG*, CH*, CJ*, CK*, CL*, CM*, CN*, CQ*, CR*, CS*, CT*, CU*, CV*, CW*, CX*, CY*, DB*, DC* (See Note Above)

AGGP J DRILLED HOLE DIAMETER

Definition: THE LENGTH OF A STRAIGHT LINE WHICH PASSES THROUGH THE CENTER OF A DRILLED HOLE, AND TERMINATES AT THE CIRCUMFERENCE.

Reply Instructions: Enter the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value. (e.g., AGGPJAA0.250*; AGGPJLA6.3*; AGGPJAB0.125\$\$JAC0.130*)

Table 1

| <u>REPLY CODE</u> | <u>REPLY (AA05)</u> |
|-------------------|---------------------|
| A | INCHES |
| L | MILLIMETERS |

Table 2

| <u>REPLY CODE</u> | <u>REPLY (AC20)</u> |
|-------------------|---------------------|
| A | NOMINAL |
| B | MINIMUM |
| C | MAXIMUM |

AA*, AC*, AD*, AE*, AF*, AG*, AK*, AL*, AN*, AP*, AQ*, AT*, AU*, AV*, AW*, AX*, AY*, AZ*, BC*, BE*, BF*, BG*, BH*, BJ*, BK*, BN*, BP*, BS*, BT*, BV*, BX*, BY*, BZ*, CA*, CB*, CE*, CG*, CH*, CJ*, CK*, CL*, CM*, CN*, CQ*, CR*, CS*, CT*, CU*, CV*, CW*, CX*, CY*, DB*, DC* (See Note Preceding MRC AGGP)

CSPF J HOLE NOMINAL THREAD DIAMETER

Definition: THE LENGTH OF A STRAIGHT LINE WHICH PASSES THROUGH THE CENTER OF THE THREADED HOLE, AND TERMINATES AT THE CIRCUMFERENCE.

Reply Instructions: Enter the applicable Reply Code from the table below, followed by the numeric value. (e.g., CSPFJA0.250*; CSPFJL6.0*)

| <u>REPLY CODE</u> | <u>REPLY (AA05)</u> |
|-------------------|---------------------|
| A | INCHES |
| L | MILLIMETERS |

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SECTION I

| APP Key | MRC | Mode Code | Requirements |
|------------|-----|--------------|--------------|
|------------|-----|--------------|--------------|

NOTE FOR MRCS CQTW AND CTDD: IF REPLY CODE A IS ENTERED FOR MRC CSPF, REPLY TO MRC CQTW. IF REPLY CODE L IS ENTERED FOR MRC CSPF, REPLY TO MRC CTDD.

AA*, AC*, AD*, AE*, AF*, AG*, AK*, AL*, AN*, AP*, AQ*, AT*, AU*, AV*, AW*, AX*, AY*, AZ*, BC*, BE*, BF*, BG*, BH*, BJ*, BK*, BN*, BP*, BS*, BT*, BV*, BX*, BY*, BZ*, CA*, CB*, CE*, CG*, CH*, CJ*, CK*, CL*, CM*, CN*, CQ*, CR*, CS*, CT*, CU*, CV*, CW*, CX*, CY*, DB*, DC* (See Note Above)

CQTW A HOLE THREAD QUANTITY PER INCH

Definition: THE NUMBER OF HOLE THREADS PER LINEAR INCH MEASURED ON A LINE PARALLEL TO THE THREAD AXIS.

Reply Instructions: Enter the numeric value. (e.g., CQTWA20*)

AA*, AC*, AD*, AE*, AF*, AG*, AK*, AL*, AN*, AP*, AQ*, AT*, AU*, AV*, AW*, AX*, AY*, AZ*, BC*, BE*, BF*, BG*, BH*, BJ*, BK*, BN*, BP*, BS*, BT*, BV*, BX*, BY*, BZ*, CA*, CB*, CE*, CG*, CH*, CJ*, CK*, CL*, CM*, CN*, CQ*, CR*, CS*, CT*, CU*, CV*, CW*, CX*, CY*, DB*, DC* (See Note Preceding MRC CQTW)

CTDD B HOLE THREAD PITCH IN MILLIMETERS

Definition: THE DISTANCE BETWEEN CORRESPONDING POINTS ON TWO ADJACENT THREADS MEASURED PARALLEL TO THE HOLE THREAD AXIS, EXPRESSED IN MILLIMETERS.

Reply Instructions: Enter the numeric value. (e.g., CTDDB0.75*)

AG, AV, BK

CRTM D BEARING SURFACE TYPE

Definition: INDICATES THE TYPE OF BEARING SURFACE.

Reply Instructions: Enter the applicable Reply Code from the table below. (e.g., CRTMDCH*; CRTMDCH\$DWF*)

| <u>REPLY CODE</u> | <u>REPLY (AB80)</u> |
|-------------------|---------------------|
| CH | CHAMFERED |
| FL | FLAT |
| WF | WASHER FACED |

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SECTION I

| | | | |
|------------|-----|--------------|--------------|
| APP Key | MRC | Mode Code | Requirements |
|------------|-----|--------------|--------------|

NOTE FOR MRCS ADFD AND ADNC: IF NUT IS REMOVABLE AND MANUFACTURERS PART NUMBER IS NOT SPECIFIED, CHANGE THE MODE CODE TO K AND ENTER REPLY CODE A FOR MRCS ADFD AND ADNC.

AW*, BZ*, CQ* (See Note Above)

| | | |
|------|---|---------------------------------|
| ADFD | A | REMOVABLE NUT MANUFACTURER CODE |
|------|---|---------------------------------|

Definition: THE IDENTIFYING NUMERIC CODE OF THE ORIGINATOR THAT CONTROLS OR MANUFACTURES THE REMOVABLE NUT.

Reply Instructions: Enter the 5-position Commercial and Government Entity (CAGE) code from Cataloging Handbook H4/H8. (e.g., ADFDA26604*)

AW*, BZ*, CQ* (See Note Preceding MRC ADFD)

| | | |
|------|---|---|
| ADNC | A | REMOVABLE NUT MANUFACTURER PART NUMBER |
|------|---|---|

Definition: THE IDENTIFYING PART NUMBER ASSIGNED TO THE REMOVABLE NUT BY THE MANUFACTURER.

Reply Instructions: Enter the number. (e.g., ADNCASE82*)

BG, BH, BJ, BK, BN, BP, BS, BT, BV, BX, BY, BZ, CA, CB, CE, CG, CH, CM*, CQ, DF

| | | |
|------|---|-----------------|
| AAUM | D | LOCKING FEATURE |
|------|---|-----------------|

Definition: AN ELEMENT INSERTED INTO THE FASTENER, OR A DESIGN FEATURE, THAT ENABLES THE FASTENER TO EFFECTIVELY RESIST VIBRATION AND ROTATION.

Reply Instructions: Enter the applicable Reply Code from the table below. (e.g., AAUMDBN*; AAUMDBP\$DBR*)

Free-running, load locking (compression locking) requires base load to lock. Prevailing torque, manual self-locking requires wrenching to position.

| | |
|-----------------------|---|
| <u>REPLY CODE</u> | <u>REPLY (AA72)</u> |
| BN | FREE-RUNNING ALL METAL DESIGN |
| BP | PREVAILING TORQUE ALL METAL DESIGN |
| BQ | PREVAILING TORQUE ALL NONMETALLIC DESIGN |
| BS | PREVAILING TORQUE WITH METALLIC INSERT |

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| APP Key | MRC | Mode Code | Requirements |
|---------|-----|-----------|---|
| | | BR | PREVAILING TORQUE WITH NONMETALLIC INSERT |

AC, BF, CH, CW*, CX

AARN D FABRICATION METHOD

Definition: THE PROCESS USED IN MANUFACTURING THE ITEM.

Reply Instructions: Enter the applicable Reply Code from the table below. (e.g., AARNDAL*; AARNDAJ\$DAZ*)

| <u>REPLY CODE</u> | <u>REPLY (AA62)</u> |
|-------------------|---------------------|
| AN | CAST |
| AJ | FORGED |
| AZ | MACHINED |
| AL | STAMPED |

CQ

ADFE L CHANNEL STYLE

Definition: THE STYLE DESIGNATION INDICATING THE CONFIGURATION THAT MOST NEARLY CORRESPONDS TO THE APPEARANCE OF THE CHANNEL.

Reply Instructions: Enter the group designator and applicable style number from [Appendix B](#), Reference Drawing Group C. (e.g., ADFELC1*)

CN, CQ, DF

AZXC A NUT QUANTITY

Definition: THE NUMBER OF NUTS PROVIDED.

Reply Instructions: Enter the numeric value. (e.g., AZXCA4*)

AA*, AC*, AD*, AE*, AG*, AK*, AL*, AP*, AQ*, AT*, AU*, AV*, AW*, AX*, AY*, BC*, BE*, BF*, BG*, BH*, BJ*, BK*, BN*, BP*, BS*, BT*, BV*, BX*, BY*, BZ*, CA*, CE*, CG*, CH*, CK*, CM*, CQ*, CY*, DB*, DC*, DF*

ADFK J NUT COUNTERBORE DEPTH

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SECTION I

| APP Key | MRC | Mode Code | Requirements |
|---------|-----|-----------|--------------|
|---------|-----|-----------|--------------|

Definition: THE MEASUREMENT OF THE ENLARGED PORTION ADJACENT TO THE THREADED PORTION OF A NUT, IN DISTINCTION FROM HEIGHT.

Reply Instructions: Enter the applicable I/SAC from [Appendix C](#), Table 4, followed by the Mode Code, the applicable Reply Codes from Tables 1 and 2 below, and the numeric value. (e.g., ADFK2ARJAA0.172*; ADFK2ARJLA4.3*; ADFK2ARJAB0.245\$\$JAC0.255*; ADFK2ARJAA0.250*; ADFK2ASJAA0.265*; ADFK2ASJAB0.260\$\$JAC0.270*)

Table 1

| <u>REPLY CODE</u> | <u>REPLY (AA05)</u> |
|-------------------|---------------------|
| A | INCHES |
| L | MILLIMETERS |

Table 2

| <u>REPLY CODE</u> | <u>REPLY (AC20)</u> |
|-------------------|---------------------|
| A | NOMINAL |
| B | MINIMUM |
| C | MAXIMUM |

AA*, AC*, AD*, AE*, AG*, AK*, AL*, AP*, AQ*, AT*, AU*, AV*, AW*, AX*, AY*, BC*, BE*, BF*, BG*, BH*, BJ*, BK*, BN*, BP*, BS*, BT*, BV*, BX*, BY*, BZ*, CA*, CE*, CG*, CH*, CK*, CM*, CQ*, CY*, DB*, DC*, DF*

AAWY J COUNTERBORE DIAMETER

Definition: THE LENGTH OF A STRAIGHT LINE WHICH PASSES THROUGH THE CENTER OF A COUNTERBORED PORTION OF A HOLE, AND TERMINATES AT THE CIRCUMFERENCE.

Reply Instructions: Enter the applicable I/SAC from [Appendix C](#), Table 4, followed by the Mode Code, the applicable Reply Codes from Tables 1 and 2 below, and the numeric value. (e.g., AAWY2ARJAA0.172*; AAWY2ARJLA4.3*; AAWY2ARJAB0.245\$\$JAC0.255*; AAWY2ARJAA0.250*; AAWY2ASJAA0.265*; AAWY2ARJAB0.245\$\$JAC0.255*; AAWY2ASJAB0.260\$\$JAC0.270*)

Table 1

| <u>REPLY CODE</u> | <u>REPLY (AA05)</u> |
|-------------------|---------------------|
| A | INCHES |
| L | MILLIMETERS |

Table 2

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SECTION I

| | | | |
|------------|-----|--------------|--------------|
| APP Key | MRC | Mode Code | Requirements |
|------------|-----|--------------|--------------|

| | | |
|--|-------------------|---------------------|
| | <u>REPLY CODE</u> | <u>REPLY (AC20)</u> |
| | A | NOMINAL |
| | B | MINIMUM |
| | C | MAXIMUM |

AA*, AC*, AD*, AE*, AG*, AK*, AL*, AP*, AQ*, AT*, AU*, AV*, AW*, AX*, AY*, BC*, BE*, BF*, BG*, BH*, BJ*, BK*, BN*, BP*, BS*, BT*, BV*, BX*, BY*, BZ*, CA*, CE*, CG*, CH*, CK*, CM*, CQ*, CV*, CY*, DB*, DC*, DF*

CRSQ J COUNTERSINK ANGLE

Definition: THE INCLUDED ANGLE OF THE COUNTERSINK.

Reply Instructions: Enter the applicable I/SAC from [Appendix C](#), Table 4, followed by the Mode Code, the applicable Reply Codes from Tables 1 and 2 below, and the numeric value. (e.g., CRSQ2ARJDA90.0*; CRSQ2ARJRA1.5*; CRSQ2ARJDB80.0\$\$JDC82.0*; CRSQ2ARJDA90.0*; CRSQ2ASJDA90.5*; CRSQ2ASJDB90.0\$\$JDC92.0*)

Table 1

| | | |
|--|-------------------|---------------------|
| | <u>REPLY CODE</u> | <u>REPLY (AP38)</u> |
| | D | DEGREES |
| | R | RADIANS |

Table 2

| | | |
|--|-------------------|---------------------|
| | <u>REPLY CODE</u> | <u>REPLY (AC20)</u> |
| | A | NOMINAL |
| | B | MINIMUM |
| | C | MAXIMUM |

AA*, AC*, AD*, AE*, AF*, AG*, AK*, AL*, AN*, AP*, AQ*, AT*, AU*, AV*, AW*, AX*, AY*, AZ*, BC*, BE*, BF*, BG*, BH*, BJ*, BK*, BN*, BP*, BS*, BT*, BV*, BX*, BY*, BZ*, CA*, CB*, CE*, CG*, CH*, CJ*, CK*, CL*, CM*, CN*, CQ*, CR*, CS*, CT*, CU*, CV*, CW*, CX*, CY*, DB*, DC*, DE*

ABAJ D LUBRICATION

Definition: A SUBSTANCE DESIGNED TO PROVIDE A REDUCTION OF FRICTION BETWEEN THE TWO SURFACES IN CONTACT.

Reply Instructions: Enter the applicable Reply Code from the table below. (e.g., ABAJDD*; ABAJDD\$DF*)

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SECTION I

| APP Key | MRC | Mode Code | Requirements |
|------------|-----|--------------|--------------|
|------------|-----|--------------|--------------|

| <u>REPLY CODE</u> | <u>REPLY (AA92)</u> |
|-------------------|---------------------|
| D | DRY FILM LUBRICANT |
| Q | GRAPHITE |
| R | OIL |
| F | SOLUBLE LUBRICANT |
| G | WAX |

AF, BJ

AASK L HEAD STYLE

Definition: THE STYLE DESIGNATION INDICATING THE CONFIGURATION THAT MOST NEARLY CORRESPONDS TO THE APPEARANCE OF THE HEAD.

Reply Instructions: Enter the group designator and applicable style number from [Appendix B](#), Reference Drawing Group D. (e.g., AASKLD1*)

AF, BJ

ADFN D SHANK END TYPE

Definition: INDICATES THE TYPE OF END INCLUDED ON THE SHANK.

Reply Instructions: Enter the applicable Reply Code from the table below. (e.g., ADFNDB*)

| <u>REPLY CODE</u> | <u>REPLY (AC59)</u> |
|-------------------|---------------------|
| C | CLOSED |
| B | OPEN |

CK

ANLR D CROSS-SECTIONAL SHAPE

Definition: THE GEOMETRIC CONFIGURATION OF THE ITEM WHEN VIEWED IN CROSS SECTION.

Reply Instructions: Enter the applicable I/SAC from [Appendix C](#), Table 4, followed by the Mode Code, and the applicable Reply Code from the table below. (e.g., ANLR2AHDAPL*; ANLR2AHD AHL*; ANLR2AUDAPL*; ANLR2AVDASL*)

| <u>REPLY CODE</u> | <u>REPLY (AD07)</u> |
|-------------------|---------------------|
| AHL | HEXAGONAL |

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| APP Key | MRC | Mode Code | Requirements |
|------------|-----|--------------|----------------------|
| | | AKT | OCTAGONAL |
| | | APL | ROUND |
| | | AQR | ROUND W/SPLINES |
| | | AQW | ROUND W/WRENCH FLATS |
| | | ASL | SQUARE |

AT, BX

ABQZ L INTERNAL DRIVE STYLE

Definition: THE STYLE DESIGNATION INDICATING THE CONFIGURATION THAT MOST NEARLY CORRESPONDS TO THE APPEARANCE OF THE INTERNAL DRIVE.

Reply Instructions: Enter the group designator and applicable style number from [Appendix B](#), Reference Drawing Group E. (e.g., ABQZLE4*)

AW*, BZ*, CJ*, CS*

ADFP D NUT MOUNTING PROVISION

Definition: THE MEANS BY WHICH THE NUT IS MOUNTED.

Reply Instructions: Enter the applicable Reply Code from the table below. (e.g., ADFPDB*; ADFPDC\$DD*)

| <u>REPLY CODE</u> | <u>REPLY (AC37)</u> |
|-------------------|---------------------------------------|
| H | BONDING |
| C | COUNTERSUNK HOLES |
| D | DIMPLED HOLES |
| F | GRIPPING PRONGS |
| B | STRAIGHT HOLES (Round and/or Slotted) |
| E | WELDING PROJECTIONS |
| G | WELDING RECESS |

NOTE FOR MRCS CSSM, ADFR, AAWS, ADFS, ADFT, AND ADFU: IF REPLY CODE B IS ENTERED FOR MRC ADFP, REPLY TO MRC ADFU. IF REPLY CODE C IS ENTERED FOR MRC ADFP, REPLY TO MRCS CSSM, ADFR, AND ADFU. IF REPLY CODE D IS ENTERED FOR MRC ADFP, REPLY TO MRC ADFU. IF REPLY CODE E IS ENTERED FOR MRC ADFP, REPLY TO MRCS ADFR AND AAWS. IF REPLY CODE F IS ENTERED FOR MRC ADFP, REPLY TO MRCS ADFS AND ADFT. IF REPLY CODE G IS ENTERED FOR MRC ADFP, DO NOT REPLY TO MRCS CSSM, ADFR, AAWS, ADFS, ADFT, AND ADFU.

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| | | | |
|------------|-----|--------------|--------------|
| APP Key | MRC | Mode Code | Requirements |
|------------|-----|--------------|--------------|

AW*, BZ*, CJ*, CS* (See Note Above)

CSSM J MOUNTING HOLE COUNTERSINK ANGLE

Definition: THE INCLUDED ANGLE OF THE MOUNTING HOLE COUNTERSINK.

Reply Instructions: Enter the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value. (e.g., CSSMJDA80.0*; CSSMJRA1.5*; CSSMJDB80.0\$\$JDC82.0*)

Table 1

| | |
|-------------------|---------------------|
| <u>REPLY CODE</u> | <u>REPLY (AP38)</u> |
| D | DEGREES |
| R | RADIANS |

Table 2

| | |
|-------------------|---------------------|
| <u>REPLY CODE</u> | <u>REPLY (AC20)</u> |
| A | NOMINAL |
| B | MINIMUM |
| C | MAXIMUM |

AW*, BZ*, CJ*, CS* (See Note Preceding MRC CSSM)

ADFR D MOUNTING PROVISION LOCATION

Definition: THE SIDE OF THE PLATE THAT THE COUNTERSINK OR WELDING PROJECTIONS ARE LOCATED.

Reply Instructions: Enter the applicable Reply Code from the table below. (e.g., ADFRDANT*)

| | |
|-------------------|------------------------------|
| <u>REPLY CODE</u> | <u>REPLY (AE46)</u> |
| ANT | NUT PROJECTION SIDE |
| ANZ | OPPOSITE NUT PROJECTION SIDE |

AW*, BZ*, CJ*, CS* (See Note Preceding MRC CSSM)

AAWS A WELDING PROJECTION QUANTITY

Definition: THE NUMBER OF WELDING PROJECTIONS INCLUDED ON THE ITEM.

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| | | | |
|-----|-----|------|--------------|
| APP | | Mode | |
| Key | MRC | Code | Requirements |

Reply Instructions: Enter the quantity. (e.g., AAWSA4*)

AW*, BZ*, CJ*, CS* (See Note Preceding MRC CSSM)

ADFS A GRIPPING PRONG QUANTITY

Definition: THE NUMBER OF GRIPPING PRONGS INCLUDED ON THE ITEM.

Reply Instructions: Enter the quantity. (e.g., ADFS6*)

AW*, BZ*, CJ*, CS* (See Note Preceding MRC CSSM)

ADFT J GRIPPING PRONG LENGTH

Definition: A MEASUREMENT OF THE LONGEST DIMENSION FROM THE END OF THE GRIPPING PRONG TO THE BASE OF THE NUT, IN DISTINCTION FROM WIDTH.

Reply Instructions: Enter the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value. (e.g., ADFTJAA0.250*; ADFTJLA6.3*; ADFTJAB0.245\$\$JAC0.255*)

Table 1

| | |
|-------------------|---------------------|
| <u>REPLY CODE</u> | <u>REPLY (AA05)</u> |
| A | INCHES |
| L | MILLIMETERS |

Table 2

| | |
|-------------------|---------------------|
| <u>REPLY CODE</u> | <u>REPLY (AC20)</u> |
| A | NOMINAL |
| B | MINIMUM |
| C | MAXIMUM |

AW*, BZ*, CJ*, CS* (See Note Preceding MRC CSSM)

ADFU L MOUNTING HOLE ARRANGEMENT STYLE

Definition: THE STYLE DESIGNATION INDICATING THE CONFIGURATION THAT MOST NEARLY CORRESPONDS TO THE ARRANGEMENT OF THE MOUNTING HOLE(S).

Reply Instructions: Enter the group designator and applicable style number from [Appendix B](#), Reference Drawing Group F. (e.g., ADFULF7*)

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| APP Key | MRC | Mode Code | Requirements |
|---------|-----|-----------|--------------|
|---------|-----|-----------|--------------|

CY

AAGN J NOMINAL PIPE SIZE DESIGNATION

Definition: THE INDUSTRIAL DESIGNATION OR TERM USED TO DEFINE THE DIAMETER OF PIPE.

Reply Instructions: Enter the applicable Reply Code from the table below, followed by the size. (e.g., AAGNJA1.250*; AAGN JL31.7*)

| <u>REPLY CODE</u> | <u>REPLY (AA05)</u> |
|-------------------|---------------------|
| A | INCHES |
| L | MILLIMETERS |

CY

CWLP # A PIPE SIZE DESIGNATOR

Definition: A DESIGNATION INDICATING THE SIZE OF THE PIPE.

Reply Instructions: Enter the pipe size designator. (e.g., CWLPADN32*)

CW, CX, CY

CQRJ J NOMINAL TUBE OUTSIDE DIAMETER

Definition: THE NOMINAL LENGTH OF A STRAIGHT LINE WHICH PASSES THROUGH THE CENTER OF A TUBE, AND TERMINATES AT THE OUTSIDE CIRCUMFERENCE.

Reply Instructions: Enter the applicable Reply Code from the table below, followed by the numeric value. (e.g., CQRJJA0.500*; CQRJ JL12.7*)

| <u>REPLY CODE</u> | <u>REPLY (AA05)</u> |
|-------------------|---------------------|
| A | INCHES |
| L | MILLIMETERS |

DC

AYKC J HOSE NOMINAL SIZE

Definition: DESIGNATES THE NOMINAL SIZE, SUCH AS LENGTH, WIDTH, DIAMETER, AND THE LIKE, OF THE HOSE.

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| | | | |
|------------|-----|--------------|--------------|
| APP Key | MRC | Mode Code | Requirements |
|------------|-----|--------------|--------------|

Reply Instructions: Enter the applicable Reply Code from the table below, followed by the numeric value. (e.g., AYKCJA0.250*; AYKCJL6.3*)

| | |
|-------------------|---------------------|
| <u>REPLY CODE</u> | <u>REPLY (AA05)</u> |
| A | INCHES |
| L | MILLIMETERS |

DC

CWMC # A HOSE SIZE DESIGNATOR

Definition: A DESIGNATION INDICATING THE SIZE OF THE HOSE.

Reply Instructions: Enter the hose size designator. (e.g., CWMCADN16*)

AA, AC, AD, AE, AF, AG, AK, AL, AN, AP, AQ, AT, AU, AV, AW, AX, AY, AZ, BC, BE, BF, BG, BH, BJ, BK, BN, BP, BS, BT, BV, BX, BY, BZ, CA, CB, CE, CG, CH, CK, CM*, CQ, CY, DB, DC, DF

AZKQ J TEMP RATING

Definition: A VALUE WHICH EXPRESSES THE DEGREE OF HEAT OR COLD AS APPLIED TO THE OPERATION, OR LIMITATION OF OPERATION, OF AN ITEM.

Reply Instructions: Enter the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value. Precede negative values with an M. (e.g., AZKQJCAM50.0*; AZKQJCA300.0*; AZKQJCBM50.0\$\$JCC300.0*)

For items that do not require a rating, change the Mode Code to K and enter Reply Code N. (e.g., AZKQKN*)

| | |
|-------------------|---------------------|
| <u>Table 1</u> | |
| <u>REPLY CODE</u> | <u>REPLY (AB36)</u> |
| C | DEG CELSIUS |
| F | DEG FAHRENHEIT |

| | |
|-------------------|---------------------|
| <u>Table 2</u> | |
| <u>REPLY CODE</u> | <u>REPLY (AC20)</u> |
| A | NOMINAL |
| B | MINIMUM |
| C | MAXIMUM |

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SECTION I

| APP Key | MRC | Mode Code | Requirements |
|------------|-----|--------------|--------------|
|------------|-----|--------------|--------------|

AU*, AW*, AY*, BZ*, CV*, CW*, CY*

ABFF D FURNISHED ITEMS

Definition: ITEMS FURNISHED AS ACCESSORIES WHICH ARE NOT SPECIFIED ELSEWHERE.

Reply Instructions: Enter the applicable Reply Code from the table below. (e.g., ABFFDAEL*; ABFFDAEL\$\$DACN*)

| <u>REPLY CODE</u> | <u>REPLY (AB28)</u> |
|-------------------|---------------------|
| AEL | CAP |
| ADL | FRICITION RING |
| ACN | GASKET |
| AKQ | PACKING |
| ADZ | PREFORMED PACKING |
| AFJ | SETSCREW |
| ARB | SLIP JOINT WASHER |

NOTE FOR MRC NHCF: IF THE CRITICALITY CODE IS E, H, OR M, REPLY TO MRC NHCF.

ALL * (See Note Above)

NHCF D NUCLEAR HARDNESS CRITICAL FEATURE

Definition: AN INDICATION OF THE NUCLEAR HARDNESS CRITICALITY OF THE ITEM.

Reply Instructions: Enter the Reply Code from the table below. (e.g., NHCFCY *)

| <u>REPLY CODE</u> | <u>REPLY (AD05)</u> |
|-------------------|---------------------|
| CY | HARDENED |

DB

CRPK J MAXIMUM WORKING PRESSURE RATING AND SERVICE FOR WHICH DESIGNED

Definition: THE MAXIMUM RATED WORKING PRESSURE THE ITEM CAN WITHSTAND WITHOUT RUPTURE, AND THE SERVICE FOR WHICH DESIGNED.

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| | | | |
|------------|-----|--------------|--------------|
| APP Key | MRC | Mode Code | Requirements |
|------------|-----|--------------|--------------|

Reply Instructions: Enter the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value. (e.g., CRPKJFBAAE250.0*; CRPKJEYAAE200.0*; CRPKJFBAAE250.0\$\$JFBAAG400.0*)

For items that do not require a rating, change the Mode Code to K and enter Reply Code N. (e.g., CRPKKN*)

Table 1

| <u>REPLY CODE</u> | <u>REPLY (AG67)</u> |
|-------------------|---|
| LM | BAR |
| EY | KILOGRAMS PER SQUARE CENTIMETER |
| LJ | MEGAPASCALS (Newtons per Square Millimeter) |
| FB | POUNDS PER SQUARE INCH |

Table 2

| <u>REPLY CODE</u> | <u>REPLY (AA94)</u> |
|-------------------|---------------------|
| AAG | AIR |
| AAD | OIL |
| AAE | STEAM |
| AAJ | WATER |

ALL *

UKAS # D STRENGTH GRADE DESIGNATION

Definition: A NUMERIC AND/OR ALPHA-NUMERIC DESIGNATOR WHICH INDICATES THE STRENGTH RATING OF A THREADED FASTENER.

Reply Instructions: Enter the applicable Reply Code from [Appendix A](#), Table 6. (e.g., UKASDAB*)

AG*

ALDD J BREAKING TORQUE

Definition: THE MEASURED TORQUE REQUIRED TO BREAK THE ITEM.

Reply Instructions: Enter the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value.

(e.g., ALDDJFA120.250*; ALDDJKA1659.0*; ALDDJAB75.000\$\$JAC90.500*)

| <u>REPLY CODE</u> | <u>REPLY (AA56)</u> |
|-------------------|----------------------|
| D | CENTIMETER-GRAMS |
| K | CENTIMETER-KILOGRAMS |

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SECTION I

| APP Key | MRC | Mode Code | Requirements |
|---------|-----|-------------------|---------------------|
| | | F | FOOT-POUNDS |
| | | G | INCH-POUNDS |
| | | J | NEWTON-CENTIMETER |
| | | B | NEWTON-METER |
| | | <u>REPLY CODE</u> | <u>REPLY (AC20)</u> |
| | | A | NOMINAL |
| | | B | MINIMUM |
| | | C | MAXIMUM |

CBBL D FEATURES PROVIDED

Definition: THOSE FEATURES, NOT OTHERWISE SPECIFIED, WHICH MAY BE REQUIRED FOR PROPER FUNCTIONING OF THE ITEM.

Reply Instructions: Enter the applicable Reply Code from the table below. (e.g., CBBLDAEQ*; CBBLDAEQ\$\$DBBS*)

| <u>REPLY CODE</u> | <u>REPLY (AN47)</u> |
|-------------------|---------------------|
| AEQ | CASEHARDENED |
| CTE | DULL FINISH |
| BBR | FLOATING NUT |
| BBS | REMOVABLE COLLAR |

ALL * (See Note Preceding MRC CBBL)

FEAT G SPECIAL FEATURES

Definition: THOSE UNUSUAL OR UNIQUE CHARACTERISTICS OR QUALITIES OF AN ITEM NOT COVERED IN THE OTHER REQUIREMENTS AND WHICH ARE DETERMINED TO BE ESSENTIAL FOR IDENTIFICATION.

Reply Instructions: Enter the reply in clear text. Separate multiple replies with a semicolon. (e.g., FEATGADJUSTABLE NOSE CLIP*; FEATGADJUSTABLE NOSE PIECE; DISPOSABLE*)

ALL*

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SECTION I

| APP Key | MRC | Mode Code | Requirements |
|------------|-----|--------------|--------------------|
| TEST | | J | TEST DATA DOCUMENT |

Definition: THE SPECIFICATION, STANDARD, DRAWING, OR SIMILAR INSTRUMENT THAT SPECIFIES ENVIRONMENTAL AND PERFORMANCE REQUIREMENTS OR TEST CONDITIONS UNDER WHICH AN ITEM IS TESTED AND ESTABLISHES ACCEPTABLE LIMITS WITHIN WHICH THE ITEM MUST CONFORM IDENTIFIED BY AN ALPHABETIC AND/OR NUMERIC REFERENCE NUMBER. INCLUDES THE COMMERCIAL AND GOVERNMENT ENTITY (CAGE) CODE OF THE ENTITY CONTROLLING THE INSTRUMENT.

Reply Instructions: Enter the applicable Reply Code from the table below, followed by the 5-position CAGE Code, a dash, and the document identification number.

(e.g., TESTJA12345-CWX654321*);

TESTJA1234A-654321\$\$JB5556A-663654*;

TESTJAA2345-654321\$JB55566-663654*)

| <u>REPLY CODE</u> | <u>REPLY (AC28)</u> |
|-----------------------|--|
| A | SPECIFICATION (Includes engineering type bulletins, brochures, etc., that reflect specification type data in specification format; excludes commercial catalogs, industry directories, and similar trade publications, reflecting general type data on certain environmental and performance requirements and test conditions that are shown as "typical," "average," "nominal," etc.) |
| B | STANDARD (Includes industry or association standards, individual manufacturer standards, etc.) |
| C | DRAWING (This is the basic governing drawing, such as a contractor drawing, original equipment manufacturer drawing, etc.; excludes any specification, standard, or other document that may be referenced in a basic governing drawing) |

ALL*

| | | |
|------|---|-----------------------|
| SPCL | G | SPECIAL TEST FEATURES |
|------|---|-----------------------|

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SECTION I

| APP Key | MRC | Mode Code | Requirements |
|---------|-----|-----------|--------------|
|---------|-----|-----------|--------------|

Definition: TEST CONDITIONS AND RATINGS, OR ENVIRONMENTAL AND PERFORMANCE REQUIREMENTS THAT ARE DIFFERENT, MORE CRITICAL, OR MORE SPECIFIC THAN THOSE SPECIFIED IN A GOVERNING TEST DATA DOCUMENT.

Reply Instructions: Enter the reply in clear text. (e.g., SPCLGSELECTED AND TESTED FOR NAVIGATIONAL SYSTEMS*)

ALL*

ZZZK J SPECIFICATION/STANDARD DATA

Definition: THE DOCUMENT DESIGNATOR OF THE SPECIFICATION OR STANDARD WHICH ESTABLISHED THE ITEM OF SUPPLY.

Reply Instructions: Enter the applicable Reply Code from the table below, followed by the Commercial and Government Entity (CAGE) Code of the entity controlling the document, a dash, and the document designator. The agency that controls the limited coordination document must be preceded and followed by a slash following the designator. The word canceled or superseded must be preceded and followed by a slash for the designator. Professional and industrial association specifications/standards are differentiated from a manufacturer's specification in that the data has been coordinated and published by the professional and industrial association. Include amendments and revisions where applicable.

(e.g., ZZZKJT81337-30642B*;

ZZZKJS81349-MIL-D-180 REV1/CANCELED/*;

ZZZKJP80205-NAS1103*;

ZZZKJS81349-MIL-C-1140C/CE/*;

ZZZKJT81337-30642B\$\$JP80205-NAS1103*)

| <u>REPLY CODE</u> | <u>REPLY (AN62)</u> |
|-------------------|---|
| S | GOVERNMENT SPECIFICATION |
| T | GOVERNMENT STANDARD |
| D | MANUFACTURERS SOURCE CONTROL |
| R | MANUFACTURERS SPECIFICATION |
| N | MANUFACTURERS SPECIFICATION CONTROL |
| M | MANUFACTURERS STANDARD |
| B | NATIONAL STD/SPEC |
| A | PROFESSIONAL/INDUSTRIAL ASSOCIATION SPECIFICATION |

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SECTION I

| APP Key | MRC | Mode Code | Requirements |
|------------|-----|--------------|---|
| | | P | PROFESSIONAL/INDUSTRIAL ASSOCIATION STANDARD |

NOTE FOR MRC ZZZT: IF THE SPECIFICATION/STANDARD CITED IN REPLY TO MRC ZZZK IS NONDEFINITIVE, REPLY TO MRC ZZZT. THIS REPLY IS THE DATA WHICH IS NOT RECORDED IN SEGMENT C.

ALL * (See Note Above)

ZZZT J NONDEFINITIVE SPEC/STD DATA

Definition: THE NUMBER, LETTER, OR SYMBOL THAT INDICATES THE TYPE, STYLE, GRADE, CLASS, AND THE LIKE, OF AN ITEM IN A NONIDENTIFYING SPECIFICATION OR STANDARD.

Reply Instructions: Enter the applicable Reply Code from [Appendix A](#), Table 4, followed by the appropriate number, letter, or symbol. (e.g., ZZZTJTY1*; ZZZTJTY1\$\$JSTA*; ZZZTJTY1\$JSTA*)

ALL*

ZZZW G DEPARTURE FROM CITED DOCUMENT

Definition: THE TECHNICAL DIFFERENTIATING CHARACTERISTIC(S) OF AN ITEM OF SUPPLY WHICH DEPART(S) FROM THE TEXT OF A SPECIFICATION OR A STANDARD IN THAT IT REPRESENTS A SELECTION OF CHARACTERISTICS STATED IN THE SPECIFICATION OR STANDARD AS BEING OPTIONAL, OR A VARIATION FROM ONE OR MORE OF THE STATED CHARACTERISTICS, OR AN ADDITIONAL CHARACTERISTIC NOT STATED IN THE SPECIFICATION OR STANDARD.

Reply Instructions: Enter the reply in clear text. (e.g., ZZZWGAS MODIFIED BY MATERIAL*)

ALL*

ZZZX G DEPARTURE FROM CITED DESIGNATOR

Definition: THE VARIATION WHEN THE ITEM IS IN CONFORMITY WITH A TYPE DESIGNATOR COVERED BY A SPECIFICATION OR STANDARD, EXCEPT IN REGARD TO ONE OR MORE TECHNICAL DIFFERENTIATING CHARACTERISTICS.

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SECTION I

| APP Key | MRC | Mode Code | Requirements |
|------------|-----|--------------|--------------|
|------------|-----|--------------|--------------|

Reply Instructions: Enter the reply in clear text. (e.g., ZZZXGAS MODIFIED BY MATERIAL*)

ALL*

| | | |
|------|---|--|
| ZZZY | G | REFERENCE NUMBER DIFFERENTIATING CHARACTERISTICS |
|------|---|--|

Definition: A FEATURE OF THE ITEM OF SUPPLY WHICH MUST BE SPECIFICALLY RECORDED WHEN THE REFERENCE NUMBER COVERS A RANGE OF ITEMS.

Reply Instructions: Enter the reply in clear text. (e.g., ZZZYGCOLOR CODED LEADS*; ZZZYGAS DIFFERENTIATED BY MATERIAL*)

ALL*

| | | |
|------|---|--------------------------------|
| CRTL | A | CRITICALITY CODE JUSTIFICATION |
|------|---|--------------------------------|

Definition: THE MASTER REQUIREMENT CODES OF THOSE REQUIREMENTS WHICH ARE TECHNICALLY CRITICAL BY REASON OF TOLERANCE, FIT, PERFORMANCE, OR OTHER CHARACTERISTICS WHICH AFFECT IDENTIFICATION OF THE ITEM.

Reply Instructions: Enter the Master Requirement Code for the requirement, the reply to which renders the item as being critical. (e.g., CRTLAMATL*; CRTLAMATL\$\$ASURF*)

Reply to this requirement only if the header record for the item identification for the item being identified has been coded as critical.

NOTE FOR MRC PRPY: IF DOCUMENT AVAILABILITY CODE B, D, F, OR H, REPLY TO MRC PRPY.

ALL* (See Note Above)

| | | |
|------|---|-----------------------------|
| PRPY | A | PROPRIETARY CHARACTERISTICS |
|------|---|-----------------------------|

Definition: IDENTIFICATION OF THOSE CHARACTERISTICS INCLUDED IN THE DESCRIPTION FOR WHICH A NON-GOVERNMENT ACTIVITY HAS IDENTIFIED ALL OR SELECTED CHARACTERISTICS OF THE ITEM AS BEING PROPRIETARY AND THEREFORE RESTRICTED FROM RELEASE OUTSIDE THE GOVERNMENT WITHOUT PRIOR PERMISSION OF THE ORIGINATOR OF THE DATA.

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SECTION I

| APP Key | MRC | Mode Code | Requirements |
|------------|-----|--------------|--------------|
|------------|-----|--------------|--------------|

Reply Instructions: Enter the MRC codes of the individual characteristics of the description which are marked proprietary on the technical data, using AND coding (\$\$) for multiple characteristics. If all the MRCs are proprietary, enter the reply PACS. If none of the MRCs is proprietary, enter the reply NPAC. (e.g., PRPYAPACS*; PRPYANPAC*; PRPYAMATL\$\$ASURF*)

ALL*

| | | |
|------|---|-----------------------------|
| ELRN | G | EXTRA LONG REFERENCE NUMBER |
|------|---|-----------------------------|

Definition: A REFERENCE NUMBER EXCEEDING 32 POSITIONS.

Reply Instructions: Enter the entire reference number. Do not include the 5-position Commercial and Government Entity (CAGE) Code unless there is more than one extra long reference number on the NSN, (e.g., ELRNGANN112036BIL060557LEN313605UZ62365*).

If there is more than one extra long reference number on the NSN, include the CAGE or NCAGE and separate each reference by using the "&" character, (e.g., 28480 ANN112036BIL060557LEN313605UZ62365 & S1234 NN112036BIL060557LEN313605UZ62365).

In determining quantity of characters in the reference number, count will be made after modification in accordance with Volume 2, Chapter 9, FLIS Procedures Manual, DoD 4100.39-M.

ALL*

| | | |
|------|---|---------------------------------------|
| ELCD | D | EXTRA LONG CHARACTERISTIC DESCRIPTION |
|------|---|---------------------------------------|

Definition: A DESCRIPTION THAT EXCEEDS 5000 CHARACTERS.

Reply Instructions: Enter the Reply Code from the table below. (e.g., ELCDDA*)

| | |
|-----------------------------|--|
| <u>REPLY</u> <u>CODE</u> | <u>REPLY (AN58)</u> |
| A | ADDITIONAL DESCRIPTIVE DATA ON MANUAL RECORD |

SECTION III

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SECTION I

APP
Key MRC Mode Code Requirements

ALL

PRMT D PRECIOUS MATERIAL

Definition: IDENTIFICATION OF THE PRECIOUS MATERIAL CONTAINED IN THE ITEM.

Reply Instructions: Enter the applicable Reply Code from the table below. (e.g., PRMTDAGA000*; PRMTDAUA000\$\$DAGA000*; PRMTDAGA000\$DAUA000*)

| <u>REPLY CODE</u> | <u>REPLY (MA01)</u> |
|-------------------|---------------------|
| AUA000 | GOLD |
| IRA000 | IRIDIUM |
| AZA000 | OSMIUM |
| PDA000 | PALLADIUM |
| PTA000 | PLATINUM |
| RHA000 | RHODIUM |
| RTA000 | RUTHENIUM |
| AGA000 | SILVER |

ALL

PMWT J PRECIOUS MATERIAL AND WEIGHT

Definition: AN INDICATION OF THE PRECIOUS MATERIAL CONTAINED IN THE ITEM, AND THE AMOUNT PER A MEASUREMENT SCALE.

Reply Instructions: Enter the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value. Enter multiple replies in Table 1 sequence. (e.g., PMWTJPTA000R0.780*; PMWTJUA000F0.500\$\$JAGA000R0.780*)

Table 1

| <u>REPLY CODE</u> | <u>REPLY (MA01)</u> |
|-------------------|---------------------|
| AUA000 | GOLD |
| IRA000 | IRIDIUM |
| AZA000 | OSMIUM |
| PDA000 | PALLADIUM |
| PTA000 | PLATINUM |
| RHA000 | RHODIUM |
| RTA000 | RUTHENIUM |
| AGA000 | SILVER |

Table 2

| <u>REPLY CODE</u> | <u>REPLY (AG14)</u> |
|-------------------|---------------------|
| E | GRAINS, TROY |

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APP
Key MRC Mode Code Requirements

| | |
|---|--------------|
| R | GRAMS |
| F | OUNCES, TROY |

ALL

PMLC J PRECIOUS MATERIAL AND LOCATION

Definition: AN INDICATION OF THE PRECIOUS MATERIAL AND ITS LOCATION IN THE ITEM.

Reply Instructions: Enter the applicable Reply Code from the table below, followed by the location in clear text. (e.g., PMLCJAUUA000TERMINALS*; PMLCJAUUA000TERMINALS\$\$JAGA000INTERNAL SURFACES*; PMLCJAGA000TERMINALS\$JAUUA000INTERNAL SURFACES*)

| <u>REPLY CODE</u> | <u>REPLY (MA01)</u> |
|-------------------|---------------------|
| AUA000 | GOLD |
| IRA000 | IRIDIUM |
| AZA000 | OSMIUM |
| PDA000 | PALLADIUM |
| PTA000 | PLATINUM |
| RHA000 | RHODIUM |
| RTA000 | RUTHENIUM |
| AGA000 | SILVER |

ALL

CSXL J BEARING SURFACE FINISH

Definition: DESIGNATES THE SPECIFIC ROUGHNESS RATING OF THE BEARING SURFACE, REPRESENTING THE ARITHMETIC AVERAGE DEVIATION OF THE SURFACE FROM THE MEANLINE IN PROFILE.

Reply Instructions: Enter the applicable Reply Code from the table below, followed by the numeric value. (e.g., CSXLJB125.0*; CSXLJC50.0*)

| <u>REPLY CODE</u> | <u>REPLY (AE86)</u> |
|-------------------|---------------------|
| B | MICROINCHES |
| C | MICRONS |

ALL

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ABQR # J COUNTERSINK MAJOR DIAMETER

Definition: THE LENGTH F A STRAIGHT LINE WHICH PASSES THROUGH THE CENTER OF THE MAJOR PORTION OF THE HOLE, AND TERMINATES AT THE CIRCUMFERENCE..

Reply Instructions: Enter the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value. (e.g., ABQRJAA0.250*; ABQRJLA6.3*; ABQRJAB0.125\$\$JAC0.130*)

Table 1

| <u>REPLY CODE</u> | <u>REPLY (AA05)</u> |
|-------------------|---------------------|
| A | INCHES |
| L | MILLIMETERS |

Table 2

| <u>REPLY CODE</u> | <u>REPLY (AC20)</u> |
|-------------------|---------------------|
| A | NOMINAL |
| B | MINIMUM |
| C | MAXIMUM |

ALL

UKBD # J COUNTERSUNK MOUNTING HOLE MAJOR DIAMETER

Definition: THE LENGTH OF A STRAIGHT LINE WHICH PASSES THROUGH THE CENTER OF THE MAJOR PORTION OF THE MOUNTING HOLE.

Reply Instructions: Enter the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value. (e.g., UKBDJAA0.250*; UKBDJLA6.3*; UKBDJAB0.125\$\$JAC0.130*)

Table 1

| <u>REPLY CODE</u> | <u>REPLY (AA05)</u> |
|-------------------|---------------------|
| A | INCHES |
| L | MILLIMETERS |

Table 2

| <u>REPLY CODE</u> | <u>REPLY (AC20)</u> |
|-------------------|---------------------|
| A | NOMINAL |
| B | MINIMUM |
| C | MAXIMUM |

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ALL

UKBF # J NOMINAL TUBE INSIDE DIAMETER

Definition: THE LENGTH OF A STRAIGHT LINE WHICH PASSES THROUGH THE CENTER OF THE TUBE, AND TERMINATES AT THE INSIDE CIRCUMFERENCE.

Reply Instructions: Enter the applicable Reply Code from the table below, followed by the numeric value. (e.g., UKBFJA0.500*; UKBFJL6.3*)

REPLY CODE

A

L

REPLY (AA05)

INCHES

MILLIMETERS

ALL

UKCA # B PROOF LOAD STRESS

Definition: THE DESIGNATION NUMBER IS EQUAL TO ONE-HUNDREDTH OF THE SPECIFIED PROOF LOAD STRESS IN NEWTON PER SQUARE MILLIMETERS. THIS PROOF LOAD STRESS CORRESPONDS TO THE MINIMUM TENSILE STRENGTH OF A BOLT OR SCREW WITH WHICH THE NUT SHOULD BE ASSEMBLED, SO AS TO ENSURE THE LOADING CAPACITY OF THE BOLTED CONNECTION UP TO THE MINIMUM YIELD STRENGTH OF THE BOLT.

Reply Instructions: Enter the numeric value. (e.g., UKCAB500.0*)

ALL

SUPP G SUPPLEMENTARY FEATURES

Definition: CHARACTERISTICS OR QUALITIES OF AN ITEM, NOT COVERED IN ANY OTHER REQUIREMENT, WHICH ARE CONSIDERED ESSENTIAL INFORMATION FOR ONE OR MORE FUNCTIONS EXCLUDING NSN ASSIGNMENT.

Reply Instructions: Enter the reply in clear text. (e.g., SUPPGMAY INCL HOLE IN UPPER SUPPORT FOR MTG DURING SHIPMENT*)

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| APP Key | MRC | Mode Code | Requirements |
|------------|-----|-----------|--------------|
|------------|-----|-----------|--------------|

ALL

| | | |
|------|---|-------------------------------------|
| ZZZP | J | PURCHASE DESCRIPTION IDENTIFICATION |
|------|---|-------------------------------------|

Definition: THE CONTROLLING ACTIVITY AND IDENTIFICATION OF A DOCUMENT USED IN LIEU OF A SPECIFICATION IN THE PROCUREMENT OF AN ITEM OF SUPPLY.

Reply Instructions: Enter the 5-position Commercial and Government Entity (CAGE) code followed by a dash and the identifying number of the document.

(e.g., ZZZPJ81337-30624A*)

ALL

| | | |
|------|---|-------------------------|
| AGAV | G | END ITEM IDENTIFICATION |
|------|---|-------------------------|

Definition: THE NATIONAL STOCK NUMBER OR THE IDENTIFICATION INFORMATION OF THE END EQUIPMENT FOR WHICH THE ITEM IS A PART.

Reply Instructions: Enter the reply in clear text.

(e.g., AGAVG3930-00-000-0000*;

AGAVGFORKLIFT TRUCK, SMITH CORPORATION, MODEL 12, TYPE A*)

ALL

| | | |
|------|---|--|
| CXCY | G | PART NAME ASSIGNED BY CONTROLLING AGENCY |
|------|---|--|

Definition: THE NAME ASSIGNED TO THE ITEM BY THE GOVERNMENT AGENCY OR COMMERCIAL ORGANIZATION CONTROLLING THE DESIGN OF THE ITEM.

Reply Instructions: Enter the reply in clear text. (e.g., CXCYGLINE PROCESSOR CONTROL BOARD*)

ALL

| | | |
|------|---|----------------------|
| HZRD | D | HAZARDOUS SUBSTANCES |
|------|---|----------------------|

Definition: THE SUBSTANCES AND/OR MATERIALS CONTAINED IN THE ITEM THAT HAVE BEEN IDENTIFIED AS HAZARDOUS OR ENVIRONMENTALLY DAMAGING BY THE ENVIRONMENTAL PROTECTION AGENCY OR OTHER AUTHORIZED GOVERNMENT AGENCY.

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Reply Instructions: Enter the applicable Reply Code from the table below. (e.g., HZRDDHAZ042*; HZRDDHAZ008\$\$DHAZ011*)

| <u>REPLY CODE</u> | <u>REPLY (HZ00)</u> |
|-------------------|---------------------|
| HAZ042 | ASBESTOS |
| HAZ008 | CADMIUM |
| HAZ011 | CHROMIUM |
| HAZ012 | COPPER |
| HAZ222 | IRON |
| HAZ029 | LEAD |
| HAZ092 | MAGNESIUM |
| HAZ030 | MAGNESIUM ALLOY |
| HAZ252 | NICKEL |
| HAZ285 | PLASTIC |
| HAZ303 | SILVER |
| HAZ052 | ZINC |

Reply Tables

| | |
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| Table 1 - MATERIALS | 73 |
| Table 2 - SURFACE TREATMENTS | 92 |
| Table 3 - HARDNESS RATINGS | 94 |
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| Table 5 - THREAD SERIES | 96 |
| Table 6 - STRENGTH GRADE DESIGNATIONS # | 97 |

Table 1 - MATERIALS

MATERIALS

| <u>REPLY CODE</u> | <u>REPLY (MA01)</u> |
|-------------------|-----------------------|
| ALA000 | ALUMINUM |
| ALB000 | ALUMINUM ALLOY |
| AL0262 # | ALUMINUM ALLOY A-G3 |
| AL0194 # | ALUMINUM ALLOY A-G4 |
| AL0196 # | ALUMINUM ALLOY A-G5 |
| AL0197 # | ALUMINUM ALLOY A-G5MC |
| AL0206 # | ALUMINUM ALLOY A-S13 |
| AL0226 # | ALUMINUM ALLOY A-U2N |
| AL0228 # | ALUMINUM ALLOY A-U5GT |
| AL0231 # | ALUMINUM ALLOY A-Z5G |
| AL0429 | ALUMINUM ALLOY AL1 |
| AL0430 | ALUMINUM ALLOY AL2 |
| AL0431 | ALUMINUM ALLOY AL3 |
| AL0432 | ALUMINUM ALLOY AL4 |
| AL0433 | ALUMINUM ALLOY AL5 |
| AL0434 | ALUMINUM ALLOY AL6 |
| AL0028 | ALUMINUM ALLOY A380.0 |
| AL0046 | ALUMINUM ALLOY 356.0 |
| AL0043 | ALUMINUM ALLOY 520.0 |
| AL0175 # | ALUMINUM ALLOY 1050A |
| AL1060 | ALUMINUM ALLOY 1060 |
| AL1100 | ALUMINUM ALLOY 1100 |
| AL2011 | ALUMINUM ALLOY 2011 |
| AL2014 | ALUMINUM ALLOY 2014 |
| AL2017 | ALUMINUM ALLOY 2017 |
| AL0181 # | ALUMINUM ALLOY 2017A |
| AL2018 | ALUMINUM ALLOY 2018 |
| AL2024 | ALUMINUM ALLOY 2024 |
| AL2025 | ALUMINUM ALLOY 2025 |
| AL2030 # | ALUMINUM ALLOY 2030 |

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| <u>REPLY CODE</u> | <u>REPLY (MA01)</u> |
|-------------------|--------------------------------|
| AL2117 | ALUMINUM ALLOY 2117 |
| AL2218 | ALUMINUM ALLOY 2218 |
| AL2219 | ALUMINUM ALLOY 2219 |
| AL2618 | ALUMINUM ALLOY 2618 |
| AL0182 # | ALUMINUM ALLOY 2618A |
| AL3003 | ALUMINUM ALLOY 3003 |
| AL4032 | ALUMINUM ALLOY 4032 |
| AL5005 | ALUMINUM ALLOY 5005 |
| AL5052 | ALUMINUM ALLOY 5052 |
| AL5056 | ALUMINUM ALLOY 5056 |
| AL0183 # | ALUMINUM ALLOY 5056A |
| AL5083 | ALUMINUM ALLOY 5083 |
| AL5086 | ALUMINUM ALLOY 5086 |
| AL5183 # | ALUMINUM ALLOY 5183 |
| AL5356 | ALUMINUM ALLOY 5356 |
| AL5454 | ALUMINUM ALLOY 5454 |
| AL5456 | ALUMINUM ALLOY 5456 |
| AL5754 # | ALUMINUM ALLOY 5754 |
| AL6053 | ALUMINUM ALLOY 6053 |
| AL6060 # | ALUMINUM ALLOY 6060 |
| AL6061 | ALUMINUM ALLOY 6061 |
| AL6062 | ALUMINUM ALLOY 6062 |
| AL6063 | ALUMINUM ALLOY 6063 |
| AL6066 | ALUMINUM ALLOY 6066 |
| AL6151 | ALUMINUM ALLOY 6151 |
| AL6181 # | ALUMINUM ALLOY 6181 |
| AL6262 | ALUMINUM ALLOY 6262 |
| AL0185 # | ALUMINUM ALLOY 7049A |
| AL7075 | ALUMINUM ALLOY 7075 |
| AL0266 # | ALUMINUM ALLOY 7075PL |
| AL7076 | ALUMINUM ALLOY 7076 |
| AL7079 | ALUMINUM ALLOY 7079 |
| AL7178 | ALUMINUM ALLOY 7178 |
| ASA000 | ASBESTOS |
| GFB000 # | BAKELITE-GRAPHITE |
| BEB000 | BERYLLIUM COPPER |
| BRA000 # | BRASS |
| | Brass (use Reply Code CUB000) |
| BND000 # | BRONZE |
| BNA000 # | BRONZE ALUMINUM |
| BNE000 # | BRONZE PHOSPHOR |
| | Bronze (use Reply Code CUB000) |
| CDA000 | CADMIUM |
| CRA000 | CHROMIUM |
| CTB000 | COBALT ALLOY |
| CT0020 # | COBALT ALLOY C0-C91-HT |
| CT0023 # | COBALT ALLOY C0-C92-HT |
| CUA000 | COPPER |

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| <u>REPLY CODE</u> | <u>REPLY (MA01)</u> |
|-------------------|--|
| CUB000 | COPPER ALLOY Copper Alloy CA220 (use Reply Code CU0264) Copper Alloy CA230 (use Reply Code CU0074) Copper Alloy CA240 (use Reply Code CU0076) Copper Alloy CA260 (use Reply Code CU0079) Copper Alloy CA268 (use Reply Code CU0080) Copper Alloy CA360 (use Reply Code CU0091) Copper Alloy CA377 (use Reply Code CU0092) Copper Alloy CA464 (use Reply Code CU0099) |
| CU0031 | COPPER ALLOY CA623 |
| CU0257 | COPPER ALLOY CA624 Copper Alloy CA836 (use Reply Code CU0172) Copper Alloy CA854 (use Reply Code CU0178) Copper Alloy CA905 (use Reply Code CU0196) |
| CU0234 | COPPER ALLOY CA938 |
| CU1064 # | COPPER ALLOY CU-AL2SI2 |
| CU1066 # | COPPER ALLOY CU-AL8 |
| CU1067 # | COPPER ALLOY CU-AL9 |
| CU1068 # | COPPER ALLOY CU-AL9NI-FE |
| CU1158 # | COPPER ALLOY CU-AL9NI3FE2 |
| CU1060 # | COPPER ALLOY CU-AL10 |
| CU1061 # | COPPER ALLOY CU-AL10NI |
| CU1070 # | COPPER ALLOY CU-BE1, 9 |
| CU1071 # | COPPER ALLOY CU-BE2 |
| CU1055 # | COPPER ALLOY CU/B1 |
| CU1057 # | COPPER ALLOY CU/C1 |
| CU1072 # | COPPER ALLOY CU-MN4 |
| CU1165 # | COPPER ALLOY CU-NI9ZN26PB1 |
| CU1173 # | COPPER ALLOY CU-NI14AL2 |
| CU1080 # | COPPER ALLOY CU-NI22ZN17 |
| CU1081 # | COPPER ALLOY CU-NI22ZN18 |
| CU1082 # | COPPER ALLOY CU-NI24ZN17 |
| CU1083 # | COPPER ALLOY CU-NI25ZN20 |
| CU1084 # | COPPER ALLOY CU-NI26ZN17 |
| CU1097 # | COPPER ALLOY CU-SN7P |
| CU1100 # | COPPER ALLOY CU-SN9P |
| CU1091 # | COPPER ALLOY CU-SN12 |
| CU1179 # | COPPER ALLOY CU-SN12P |
| CU1135 # | COPPER ALLOY CU-ZN9NI26 |
| CU1101 # | COPPER ALLOY CU-ZN10 |
| CU1102 # | COPPER ALLOY CU-ZN15 |
| CU1103 # | COPPER ALLOY CU-ZN15NI-SI |
| CU1104 # | COPPER ALLOY CU-ZN16NI25 |
| CU1176 # | COPPER ALLOY CU-ZN19AL6 |
| CU1106 # | COPPER ALLOY CU-ZN20NI15PB1 |
| CU1109 # | COPPER ALLOY CU-ZN22NI18 |
| CU1110 # | COPPER ALLOY CU-ZN23AL4 |
| CU1117 # | COPPER ALLOY CU-ZN33 |

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| <u>REPLY CODE</u> | <u>REPLY (MA01)</u> |
|-------------------|---|
| CU1118 # | COPPER ALLOY CU-ZN35 |
| CU1120 # | COPPER ALLOY CU-ZN36 |
| CU1122 # | COPPER ALLOY CU-ZN36NI3 |
| CU1121 # | COPPER ALLOY CU-ZN36PB3 |
| CU1125 # | COPPER ALLOY CU-ZN38PB2 |
| CU1126 # | COPPER ALLOY CU-ZN39PB1 |
| CU1127 # | COPPER ALLOY CU-ZN39PB2 |
| CU1128 # | COPPER ALLOY CU-ZN40 |
| CU1129 # | COPPER ALLOY CU-ZN40MN-NI-AL |
| CU1130 # | COPPER ALLOY CU-ZN40PB3 |
| CU1188 | COPPER ALLOY CU1 |
| CU1189 | COPPER ALLOY CU2 |
| CU1190 | COPPER ALLOY CU3 |
| CU1191 | COPPER ALLOY CU4 |
| CU1192 | COPPER ALLOY CU5 |
| CU1193 | COPPER ALLOY CU6 |
| CU1194 | COPPER ALLOY CU7 |
| | Copper Alloy 40 (use Reply Code CU0172) |
| CU0059 | COPPER ALLOY 101 |
| CU0068 | COPPER ALLOY 170 |
| CU0069 | COPPER ALLOY 172 |
| CU0233 | COPPER ALLOY 173 |
| CU0263 | COPPER ALLOY 210 |
| CU0264 | COPPER ALLOY 220 |
| CU0074 | COPPER ALLOY 230 |
| CU0076 | COPPER ALLOY 240 |
| CU0079 | COPPER ALLOY 260 |
| CU0304 | COPPER ALLOY 262 |
| CU0080 | COPPER ALLOY 268 |
| CU0081 | COPPER ALLOY 270 |
| CU0272 | COPPER ALLOY 272 |
| CU0274 | COPPER ALLOY 274 |
| CU0302 | COPPER ALLOY 280 |
| CU0330 | COPPER ALLOY 330 |
| CU0305 | COPPER ALLOY 331 |
| CU0332 | COPPER ALLOY 332 |
| CU0335 | COPPER ALLOY 335 |
| CU0340 | COPPER ALLOY 340 |
| CU0088 | COPPER ALLOY 342 |
| CU0306 | COPPER ALLOY 344 |
| CU0307 | COPPER ALLOY 345 |
| CU0308 | COPPER ALLOY 347 |
| CU0309 | COPPER ALLOY 348 |
| CU0310 | COPPER ALLOY 350 |
| CU0089 | COPPER ALLOY 353 |
| CU0090 | COPPER ALLOY 356 |
| CU0091 | COPPER ALLOY 360 |
| CU0365 | COPPER ALLOY 365 |

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| <u>REPLY CODE</u> | <u>REPLY (MA01)</u> |
|-------------------|---------------------------|
| CU0370 | COPPER ALLOY 370 |
| CU0092 | COPPER ALLOY 377 |
| CU0098 | COPPER ALLOY 462 |
| CU0099 | COPPER ALLOY 464 |
| CU0465 | COPPER ALLOY 465 |
| CU0466 | COPPER ALLOY 466 |
| CU0467 | COPPER ALLOY 467 |
| CU0100 | COPPER ALLOY 482 |
| CU0101 | COPPER ALLOY 485 |
| CU0103 | COPPER ALLOY 510 |
| CU0106 | COPPER ALLOY 524 |
| CU0109 | COPPER ALLOY 544 |
| CU0115 | COPPER ALLOY 614 |
| CU0116 | COPPER ALLOY 617-CANCELED |
| CU0122 | COPPER ALLOY 630 |
| CU0632 | COPPER ALLOY 632 |
| CU0123 | COPPER ALLOY 637-CANCELED |
| CU0124 | COPPER ALLOY 639-CANCELED |
| CU0127 | COPPER ALLOY 642 |
| CU0129 | COPPER ALLOY 651 |
| CU0131 | COPPER ALLOY 655 |
| CU0134 | COPPER ALLOY 661 |
| CU0670 | COPPER ALLOY 670 |
| CU0675 | COPPER ALLOY 675 |
| CU0715 | COPPER ALLOY 715 |
| CU0146 | COPPER ALLOY 735 |
| CU0148 | COPPER ALLOY 745 |
| CU0150 | COPPER ALLOY 752 |
| CU0151 | COPPER ALLOY 762 |
| CU0152 | COPPER ALLOY 764 |
| CU0153 | COPPER ALLOY 766 |
| CU0157 | COPPER ALLOY 770 |
| CU0166 | COPPER ALLOY 820 |
| CU0167 | COPPER ALLOY 824 |
| CU0168 | COPPER ALLOY 825 |
| CU0169 | COPPER ALLOY 826 |
| CU0170 | COPPER ALLOY 827 |
| CU0171 | COPPER ALLOY 828 |
| CU0172 | COPPER ALLOY 836 |
| CU0173 | COPPER ALLOY 838 |
| CU0174 | COPPER ALLOY 842 |
| CU0175 | COPPER ALLOY 844 |
| CU0176 | COPPER ALLOY 848 |
| CU0177 | COPPER ALLOY 852 |
| CU0178 | COPPER ALLOY 854 |
| CU0179 | COPPER ALLOY 855 |
| CU0180 | COPPER ALLOY 857 |
| CU0181 | COPPER ALLOY 861 |

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| <u>REPLY CODE</u> | <u>REPLY (MA01)</u> |
|-------------------|---------------------------|
| CU0182 | COPPER ALLOY 862 |
| CU0183 | COPPER ALLOY 863 |
| CU0184 | COPPER ALLOY 864 |
| CU0185 | COPPER ALLOY 865 |
| CU0186 | COPPER ALLOY 868 |
| CU0187 | COPPER ALLOY 872 |
| CU0188 | COPPER ALLOY 874 |
| CU0875 | COPPER ALLOY 875 |
| CU0195 | COPPER ALLOY 903 |
| CU0196 | COPPER ALLOY 905 |
| CU0197 | COPPER ALLOY 907 |
| CU0198 | COPPER ALLOY 910 |
| CU0199 | COPPER ALLOY 913 |
| CU0200 | COPPER ALLOY 915-CANCELED |
| CU0201 | COPPER ALLOY 916 |
| CU0202 | COPPER ALLOY 922 |
| CU0203 | COPPER ALLOY 923 |
| CU0204 | COPPER ALLOY 925 |
| CU0205 | COPPER ALLOY 927 |
| CU0206 | COPPER ALLOY 932 |
| CU0207 | COPPER ALLOY 934 |
| CU0208 | COPPER ALLOY 935 |
| CU0209 | COPPER ALLOY 937 |
| CU0210 | COPPER ALLOY 938 |
| CU0211 | COPPER ALLOY 939 |
| CU0212 | COPPER ALLOY 940 |
| CU0213 | COPPER ALLOY 941 |
| CU0214 | COPPER ALLOY 943 |
| CU0215 | COPPER ALLOY 947 |
| CU0216 | COPPER ALLOY 948 |
| CU0217 | COPPER ALLOY 952 |
| CU0218 | COPPER ALLOY 953 |
| CU0219 | COPPER ALLOY 954 |
| CU0220 | COPPER ALLOY 955 |
| CU0221 | COPPER ALLOY 957 |
| CU0222 | COPPER ALLOY 958 |
| CU0223 | COPPER ALLOY 962 |
| CU0224 | COPPER ALLOY 964 |
| LBF000 | DISULFIDE MOLYBDENUM |
| FBA000 | FIBER |
| GSA000 | GLASS |
| GSB000 | GLASS FIBER |
| FEA000 | IRON |
| FEF000 | IRON ALLOY |
| FE0015 | IRON ALLOY 651 |
| FE0019 | IRON ALLOY 660 |
| FEB000 # | IRON CAST |
| FEH000 # | IRON CAST MALLEABLE |

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| <u>REPLY CODE</u> | <u>REPLY (MA01)</u> |
|-------------------|---------------------------|
| PBA000 | LEAD |
| MGA000 | MAGNESIUM |
| MGB000 | MAGNESIUM ALLOY |
| MG0013 | MAGNESIUM ALLOY AZ10A |
| MG0001 | MAGNESIUM ALLOY AZ31B |
| MG0002 | MAGNESIUM ALLOY AZ61A |
| MG0007 | MAGNESIUM ALLOY AZ63A |
| MG0003 | MAGNESIUM ALLOY AZ80A |
| MG0009 | MAGNESIUM ALLOY AZ92A |
| MG0005 | MAGNESIUM ALLOY M1A |
| MG0006 | MAGNESIUM ALLOY ZK60A |
| MBA000 | MOLYBDENUM |
| NLA000 | NICKEL |
| NLB000 | NICKEL ALLOY |
| NL0018 | NICKEL ALLOY K-500 |
| NL0005 | NICKEL ALLOY M252 |
| NL0075 # | NICKEL ALLOY N-C15FE |
| NL0078 # | NICKEL ALLOY N-C20K14 |
| NL0081 # | NICKEL ALLOY N-U23M3FE3 |
| NL0082 # | NICKEL ALLOY N-U30 |
| NL0104 # | NICKEL ALLOY NI-C98-HT |
| NL0105 # | NICKEL ALLOY NI-C100-HT |
| NL0106 # | NICKEL ALLOY NI-C103-HT |
| NL0107 # | NICKEL ALLOY NI-C104-HT |
| NL0108 # | NICKEL ALLOY NI-C105-HT |
| NL0088 # | NICKEL ALLOY NI-M016CR15 |
| NL0087 # | NICKEL ALLOY NI-M016CR15C |
| NL0086 # | NICKEL ALLOY NI-M028 |
| NL0109 # | NICKEL ALLOY NI-P11 |
| NL0110 # | NICKEL ALLOY NI-P61-HT |
| NL0111 # | NICKEL ALLOY NI-P91-HT |
| NL0112 # | NICKEL ALLOY NI-P93-HT |
| NL0113 # | NICKEL ALLOY NI-P94-HT |
| NL0114 # | NICKEL ALLOY NI-P95-HT |
| NL0115 # | NICKEL ALLOY NI-P96-HT |
| NL0116 # | NICKEL ALLOY NI-P100-HT |
| NL0117 # | NICKEL ALLOY NI-P101-HT |
| NL0118 # | NICKEL ALLOY NI-P102-HT |
| NL0119 # | NICKEL ALLOY NI-P105-HT |
| NL0125 # | NICKEL ALLOY NI-P106-HT |
| NL0017 | NICKEL ALLOY R-405 |
| NL0083 | NICKEL ALLOY UNS N07001 |
| NL0007 | NICKEL ALLOY X-750 |
| NL0008 | NICKEL ALLOY 400 |
| NL0019 | NICKEL ALLOY 502 |
| NL0009 | NICKEL ALLOY 600 |
| NL0012 | NICKEL ALLOY 625 |
| NL0036 | NICKEL ALLOY 702 |

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| <u>REPLY CODE</u> | <u>REPLY (MA01)</u> |
|-------------------|---|
| NL0010 | NICKEL ALLOY 718 Nickel Silver (use Reply Code CUB000) |
| MSF000 # | NONMETALLIC Nylon (use Reply Code PCP000) |
| PCA000 | PLASTIC |
| PCBL00 | PLASTIC ABS (Acrylonitrile-Butadiene-Styrene) |
| PCB000 | PLASTIC ACETAL |
| PCD000 | PLASTIC ACRYLIC |
| PCE000 | PLASTIC ALKYD |
| PCF000 | PLASTIC ALLYL |
| PCAN00 | PLASTIC CELLULOSE ACETATE |
| PCBN00 | PLASTIC CELLULOSE ACETATE BUTYRATE |
| PCBJ00 | PLASTIC CELLULOSE NITRATE |
| PCG000 | PLASTIC DIALLYL PHTHALATE |
| PCH000 | PLASTIC EPOXY |
| PCBY00 | PLASTIC ETHYL CELLULOSE |
| PCJ000 | PLASTIC MALAMINE |
| PCK000 | PLASTIC METHYL METHACRYLATE |
| PCCB00 | PLASTIC NYLON |
| PCM000 | PLASTIC PHENOL-FORMALDEHYDE |
| PCN000 | PLASTIC PHENOLIC |
| PCP000 | PLASTIC POLYAMIDE |
| PCQ000 | PLASTIC POLYCAPROLACTAM |
| PCR000 | PLASTIC POLYCARBONATE |
| PCY000 | PLASTIC POLYETHYLENE TEREPHTHALATE |
| PCZ000 | PLASTIC POLYHEXAMETHYLENE ADIPAMIDE |
| PCAM00 | PLASTIC POLYHEXAMETHYLENE AMIDE |
| PCAA00 | PLASTIC POLYHEXAMETHYLENE SEBACAMIDE |
| PCCQ00 | PLASTIC POLYPHENYLENE SULFIDE |
| PCAC00 | PLASTIC POLYPROPYLENE |
| PCAF00 | PLASTIC POLYTETRAFLUOROETHYLENE |
| PCAG00 | PLASTIC POLYTRIFLUOROCHLOROETHYLENE |
| PCAH00 | PLASTIC POLYURETHANE |
| PCAJ00 | PLASTIC POLYVINYL CHLORIDE |
| PCBG00 | PLASTIC POLYVINYLIDENE CHLORIDE |
| RSB000 # | RESIN SILICONE |
| RSA000 # | RESIN SYNTHETIC |
| RHA000 # | RHODIUM |
| RC0019 | RUBBER BUTADIENE-ACRYLONITRILE CLASS NBR |
| RC0007 | RUBBER CHLOROPRENE CLASS CR |
| RC0014 | RUBBER FLUOROSILICONE CLASS FQ |
| RCA000 | RUBBER NATURAL |
| RC0021 | RUBBER SILICONE CLASS Q |
| RCB000 | RUBBER SYNTHETIC |
| AGA000 | SILVER |
| STA000 | STEEL Steel Comp A-286 (use Reply Code FE0019) |
| ST0747 # | STEEL COMP ADX |

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| <u>REPLY CODE</u> | <u>REPLY (MA01)</u> |
|-------------------|--|
| ST0728 # | STEEL COMP AF37 |
| ST0729 # | STEEL COMP AF42 |
| ST0731 # | STEEL COMP AF60 |
| | Steel Comp AM350 (use Reply Code ST0633) |
| ST0806 | STEEL COMP A1 |
| ST0198 | STEEL COMP A2 |
| ST0358 | STEEL COMP A4 |
| ST0733 # | STEEL COMP A33 |
| ST0734 # | STEEL COMP A34 |
| ST0735 # | STEEL COMP A37 |
| ST0736 # | STEEL COMP A42 |
| ST0737 # | STEEL COMP A48 |
| ST0738 # | STEEL COMP A50 |
| ST0739 # | STEEL COMP A52 |
| ST0740 # | STEEL COMP A56 |
| ST0741 # | STEEL COMP A60 |
| ST0742 # | STEEL COMP A65 |
| ST0743 # | STEEL COMP A70 |
| ST0744 # | STEEL COMP A75 |
| | Steel Comp B1111 (use Reply Code ST1211) |
| | Steel Comp B1112 (use Reply Code ST1212) |
| | Steel Comp B1113 (use Reply Code ST1213) |
| ST0753 # | STEEL COMP CC10 |
| ST0755 # | STEEL COMP CC12 |
| ST0756 # | STEEL COMP CC20 |
| ST0757 # | STEEL COMP CC28 |
| ST0758 # | STEEL COMP CC30 |
| ST0759 # | STEEL COMP CC35 |
| ST0760 # | STEEL COMP CC45 |
| ST0018 | STEEL COMP C1 |
| ST0807 | STEEL COMP C3 |
| ST0020 | STEEL COMP C4 |
| ST0206 | STEEL COMP EV-4 |
| ST0798 # | STEEL COMP EZ6NCT25 |
| ST0748 # | STEEL COMP E24 |
| ST0749 # | STEEL COMP E26 |
| ST0750 # | STEEL COMP E30 |
| ST0752 # | STEEL COMP E36 |
| ST0026 | STEEL COMP E3310 |
| ST0028 | STEEL COMP E4340 |
| ST0030 | STEEL COMP E52100 |
| ST1847 # | STEEL COMP FE-PA11 |
| ST1848 # | STEEL COMP FE-PA12 |
| ST1849 # | STEEL COMP FE-PA13 |
| ST2035 # | STEEL COMP FE-PA18 |
| ST1850 # | STEEL COMP FE-PA91-HT |
| ST1851 # | STEEL COMP FE-PA92-HT |
| ST1852 # | STEEL COMP FE-PA93-HT |

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| <u>REPLY CODE</u> | <u>REPLY (MA01)</u> |
|-------------------|--|
| ST1853 # | STEEL COMP FE-PA95 |
| ST1854 # | STEEL COMP FE-PA99-HT |
| ST1855 # | STEEL COMP FE-PL31 |
| ST1856 # | STEEL COMP FE-PL32 |
| ST1857 # | STEEL COMP FE-PL43 S |
| ST1858 # | STEEL COMP FE-PL45 |
| ST1859 # | STEEL COMP FE-PL48 |
| ST2036 # | STEEL COMP FE-PL51 |
| ST1860 # | STEEL COMP FE-PL52 S |
| ST2037 # | STEEL COMP FE-PL61 |
| ST1861 # | STEEL COMP FE-PL62 |
| ST1862 # | STEEL COMP FE-PL73 |
| ST1863 # | STEEL COMP FE-PL74 |
| ST1864 # | STEEL COMP FE-PL75 |
| ST1865 # | STEEL COMP FE-PL76 |
| ST2038 # | STEEL COMP FE-PL78 |
| ST2039 # | STEEL COMP FE-PL79 |
| ST2040 # | STEEL COMP FE-PL80 |
| ST1866 # | STEEL COMP FE-PL711 |
| ST1867 # | STEEL COMP FE-PM13 S |
| ST1868 # | STEEL COMP FE-PM32 |
| ST1869 # | STEEL COMP FE-PM37 |
| ST1912 # | STEEL COMP FE-PM38 |
| ST1870 # | STEEL COMP FE-PM42 |
| ST1871 # | STEEL COMP FE-PM43 |
| ST1872 # | STEEL COMP FE-PM44 |
| ST2041 # | STEEL COMP FE-PM61 |
| ST2042 # | STEEL COMP FE-PM66 |
| ST0037 | STEEL COMP F1 |
| ST0043 | STEEL COMP H11 |
| ST0047 | STEEL COMP MT1015 |
| ST0048 | STEEL COMP MT1020 |
| ST0314 | STEEL COMP M3 |
| ST0163 | STEEL COMP M1020 |
| ST0291 | STEEL COMP O1 |
| ST0292 | STEEL COMP O2 |
| | Steel Comp PH-15-7MO (use Reply Code ST0632) |
| ST0763 # | STEEL COMP S250PB |
| ST0764 # | STEEL COMP S300 |
| ST0765 # | STEEL COMP S300PB |
| ST0307 | STEEL COMP W210 |
| ST0308 | STEEL COMP W214 |
| ST0793 # | STEEL COMP XC7 |
| ST0779 # | STEEL COMP XC10 |
| ST0781 # | STEEL COMP XC12 |
| ST0782 # | STEEL COMP XC18 |
| ST0783 # | STEEL COMP XC25 |
| ST0784 # | STEEL COMP XC32 |

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| <u>REPLY CODE</u> | <u>REPLY (MA01)</u> |
|-------------------|------------------------------|
| ST0785 # | STEEL COMP XC35 |
| ST0786 # | STEEL COMP XC38 |
| ST0787 # | STEEL COMP XC42 |
| ST0788 # | STEEL COMP XC45 |
| ST0789 # | STEEL COMP XC48 |
| ST0790 # | STEEL COMP XC55 |
| ST0792 # | STEEL COMP XC65 |
| ST0794 # | STEEL COMP XC70 |
| ST0795 # | STEEL COMP XC75 |
| ST0797 # | STEEL COMP XC80 |
| ST0168 | STEEL COMP XM-7 |
| ST0704 | STEEL COMP XM-12 |
| ST0187 | STEEL COMP XM-13 |
| ST0293 | STEEL COMP XM-24 |
| ST0717 | STEEL COMP XM-28 |
| ST0938 # | STEEL COMP Z2CND17-12 |
| ST0939 # | STEEL COMP Z2CND17-13 |
| ST0946 # | STEEL COMP Z2CN18-10 |
| ST0949 # | STEEL COMP Z2NKD18-08 |
| ST0953 # | STEEL COMP Z3CND17-12 |
| ST0954 # | STEEL COMP Z3CN18-10 |
| ST0963 # | STEEL COMP Z5CNDU21-08 |
| ST1834 # | STEEL COMP Z5CND17-04-01 |
| ST0964 # | STEEL COMP Z5CN18-10 |
| ST1835 # | STEEL COMP Z6CND17-04-01 |
| ST0975 # | STEEL COMP Z6CND17-11 |
| ST0976 # | STEEL COMP Z6CND17-12 |
| ST1833 # | STEEL COMP Z6CND18-12 |
| ST0984 # | STEEL COMP Z6CN18-09 |
| ST0985 # | STEEL COMP Z6CN18-10 |
| ST1604 # | STEEL COMP Z8C-17 |
| ST2034 # | STEEL COMP Z8CNDA15-07 |
| ST0996 # | STEEL COMP Z8CNDT18-12 |
| ST1601 # | STEEL COMP Z8CN18-08 |
| ST1602 # | STEEL COMP Z8CN18-12 |
| ST0890 # | STEEL COMP Z10CDF17-01 |
| ST0899 # | STEEL COMP Z10CF17 |
| ST0891 # | STEEL COMP Z10CNF18-09 |
| ST0892 # | STEEL COMP Z10CNT18-10 |
| ST0893 # | STEEL COMP Z10CNT18-11 |
| ST0895 # | STEEL COMP Z10CNWT17-13 |
| ST0894 # | STEEL COMP Z10CNW17 |
| ST0896 # | STEEL COMP Z10CN18-09 |
| ST0897 # | STEEL COMP Z10CN18-10 |
| ST0907 # | STEEL COMP Z12CD7 |
| ST0922 # | STEEL COMP Z12CF13 |
| ST0914 # | STEEL COMP Z12CND-NB18-12-03 |
| ST0909 # | STEEL COMP Z12CNDV12 |

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| <u>REPLY CODE</u> | <u>REPLY (MA01)</u> |
|-------------------|---|
| ST0910 # | STEEL COMP Z12CND16-04 |
| ST0911 # | STEEL COMP Z12CND18-10 |
| ST0912 # | STEEL COMP Z12CND18-12 |
| ST0916 # | STEEL COMP Z12CNT18-12 |
| ST0917 # | STEEL COMP Z12CN16-03 |
| ST1732 # | STEEL COMP Z12CN17-08 |
| ST0919 # | STEEL COMP Z12CN18 |
| ST0920 # | STEEL COMP Z12CN18-10 |
| ST0923 # | STEEL COMP Z12C13 |
| ST0928 # | STEEL COMP Z15CND18-09-02 |
| ST0930 # | STEEL COMP Z15CN16-02 |
| ST0931 # | STEEL COMP Z15CN16-03 |
| ST0932 # | STEEL COMP Z15CN17-03 |
| ST0933 # | STEEL COMP Z15CN20-12 |
| ST0935 # | STEEL COMP Z15C13 |
| ST0950 # | STEEL COMP Z20CDNBV11 |
| ST0952 # | STEEL COMP Z20C13 |
| ST0957 # | STEEL COMP Z30C13 |
| ST0960 # | STEEL COMP Z40CSD10 |
| ST0966 # | STEEL COMP Z50NC23-02 |
| ST1613 # | STEEL COMP 10F1 |
| ST1614 # | STEEL COMP 10F2 |
| ST1615 # | STEEL COMP 10NCD12 |
| ST1617 # | STEEL COMP 10NC6 |
| ST1619 # | STEEL COMP 10PB-F2 |
| ST1618 # | STEEL COMP 10PB2 |
| ST0539 | STEEL COMP 11L17 |
| ST0189 | STEEL COMP 11L37 |
| ST0063 | STEEL COMP 12L14 |
| ST1623 # | STEEL COMP 12MF4 |
| ST1627 # | STEEL COMP 14NC11 |
| | Steel Comp 15-5PH (use Reply Code ST0704) |
| ST1629 # | STEEL COMP 15CDV6 |
| ST1630 # | STEEL COMP 15CD2-05 |
| ST1631 # | STEEL COMP 15CD4 |
| ST1633 # | STEEL COMP 15CD5 |
| ST1634 # | STEEL COMP 15F2 |
| ST1637 # | STEEL COMP 16NC6 |
| | Steel Comp 17-4PH (use Reply Code ST0630) |
| | Steel Comp 17-7PH (use Reply Code ST0631) |
| | Steel Comp 17-22A (use Reply Code ST0601) |
| ST1638 # | STEEL COMP 18CD4 |
| | Steel Comp 19-9DL (use Reply Code FE0015) |
| ST1646 # | STEEL COMP 20F2 |
| ST1657 # | STEEL COMP 20PB2 |
| ST1663 # | STEEL COMP 25CD4 |
| ST1664 # | STEEL COMP 25MNCDV5 |
| ST1667 # | STEEL COMP 25NCD9 |

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| <u>REPLY CODE</u> | <u>REPLY (MA01)</u> |
|-------------------|---|
| ST1668 # | STEEL COMP 25NC6 |
| ST1669 # | STEEL COMP 28CDV5 |
| ST1670 # | STEEL COMP 28CDV5-08 |
| ST1673 # | STEEL COMP 30CD4 |
| ST1672 # | STEEL COMP 30CD12 |
| ST1674 # | STEEL COMP 30CND8 |
| ST1675 # | STEEL COMP 30NCD12 |
| ST1676 # | STEEL COMP 30NCD16 |
| ST1990 # | STEEL COMP 30NC6 |
| ST1677 # | STEEL COMP 30NC11 |
| ST1680 # | STEEL COMP 35CD4 |
| ST1682 # | STEEL COMP 35MF4 |
| ST1683 # | STEEL COMP 35MF6 |
| ST1681 # | STEEL COMP 35M5 |
| ST1686 # | STEEL COMP 35NCD2 |
| ST1687 # | STEEL COMP 35NCD6 |
| ST1685 # | STEEL COMP 35NCD16 |
| ST1688 # | STEEL COMP 35NC6 |
| ST1691 # | STEEL COMP 38C2 |
| ST1692 # | STEEL COMP 38C4 |
| ST1696 # | STEEL COMP 40NCD18 |
| ST1698 # | STEEL COMP 40NC17 |
| ST1816 | STEEL COMP 41L40 |
| ST1985 | STEEL COMP 41L42 |
| ST1986 | STEEL COMP 41L50 |
| ST1701 # | STEEL COMP 42CD4 |
| ST1709 # | STEEL COMP 45SCD6 |
| ST1711 # | STEEL COMP 45S8 |
| ST0238 | STEEL COMP 50B46 |
| ST0240 | STEEL COMP 50B50 |
| ST0114 | STEEL COMP 50B60 |
| ST0115 | STEEL COMP 51B60 |
| ST0116 | STEEL COMP 51B60H |
| ST0173 | STEEL COMP 81B45 |
| ST0175 | STEEL COMP 86B45 |
| ST0170 | STEEL COMP 94B30 |
| ST0201 | STEEL COMP 201 |
| ST0202 | STEEL COMP 202 |
| ST0159 | STEEL COMP 203EZ |
| ST0301 | STEEL COMP 301 |
| ST0302 | STEEL COMP 302 |
| ST0180 | STEEL COMP 302B |
| ST0303 | STEEL COMP 303 |
| | Steel Comp 303 PLUS CB (use Reply Code ST0629) |
| ST0166 | STEEL COMP 303 PLUS X |
| ST0157 | STEEL COMP 303CU |
| ST0077 | STEEL COMP 303F |
| | Steel Comp 303F PLUS CB (use Reply Code ST0628) |

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| <u>REPLY CODE</u> | <u>REPLY (MA01)</u> |
|-------------------|-----------------------|
| ST0165 | STEEL COMP 303MA |
| ST0158 | STEEL COMP 303PB |
| ST0078 | STEEL COMP 303S |
| ST0079 | STEEL COMP 303SE |
| ST0304 | STEEL COMP 304 |
| ST0448 | STEEL COMP 304H |
| ST0080 | STEEL COMP 304L |
| ST0305 | STEEL COMP 305 |
| ST0152 | STEEL COMP 308 |
| ST0309 | STEEL COMP 309 |
| ST0153 | STEEL COMP 309S |
| ST0310 | STEEL COMP 310 |
| ST0154 | STEEL COMP 310S |
| ST0155 | STEEL COMP 314 |
| ST0316 | STEEL COMP 316 |
| ST0082 | STEEL COMP 316L |
| ST0317 | STEEL COMP 317 |
| ST0321 | STEEL COMP 321 |
| ST0323 | STEEL COMP 323 |
| ST0324 | STEEL COMP 324 |
| ST0347 | STEEL COMP 347 |
| ST0348 | STEEL COMP 348 |
| ST0384 | STEEL COMP 384 |
| ST0385 | STEEL COMP 385 |
| ST0403 | STEEL COMP 403 |
| ST0405 | STEEL COMP 405 |
| ST0410 | STEEL COMP 410 |
| ST0414 | STEEL COMP 414 |
| ST0416 | STEEL COMP 416 |
| ST0255 | STEEL COMP 416 PLUS X |
| ST0098 | STEEL COMP 416F |
| ST0099 | STEEL COMP 416SE |
| ST0420 | STEEL COMP 420 |
| ST0100 | STEEL COMP 420F |
| ST0429 | STEEL COMP 429 |
| ST0430 | STEEL COMP 430 |
| ST0101 | STEEL COMP 430F |
| ST0172 | STEEL COMP 430FSE |
| ST0431 | STEEL COMP 431 |
| ST0105 | STEEL COMP 440A |
| ST0106 | STEEL COMP 440B |
| ST0107 | STEEL COMP 440C |
| ST0108 | STEEL COMP 440F |
| ST0442 | STEEL COMP 442 |
| ST0446 | STEEL COMP 446 |
| ST0501 | STEEL COMP 501 |
| ST0601 | STEEL COMP 601 |
| ST0615 | STEEL COMP 615 |

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| <u>REPLY CODE</u> | <u>REPLY (MA01)</u> |
|-------------------|---|
| ST0630 | STEEL COMP 630 |
| ST0631 | STEEL COMP 631 |
| ST0632 | STEEL COMP 632 |
| ST0633 | STEEL COMP 633 |
| ST1005 | STEEL COMP 1005 |
| ST1006 | STEEL COMP 1006 |
| ST1008 | STEEL COMP 1008 |
| ST1009 | STEEL COMP 1009 |
| ST1010 | STEEL COMP 1010 |
| ST1011 | STEEL COMP 1011 |
| ST1012 | STEEL COMP 1012 |
| ST1013 | STEEL COMP 1013 |
| ST1015 | STEEL COMP 1015 |
| ST1016 | STEEL COMP 1016 |
| ST1017 | STEEL COMP 1017 |
| ST1018 | STEEL COMP 1018 |
| ST1019 | STEEL COMP 1019 |
| ST1020 | STEEL COMP 1020 |
| ST1021 | STEEL COMP 1021 |
| ST1022 | STEEL COMP 1022 |
| ST1023 | STEEL COMP 1023 |
| | Steel Comp 1024 (use Reply Code ST1524) |
| ST1025 | STEEL COMP 1025 |
| ST1026 | STEEL COMP 1026 |
| | Steel Comp 1027 (use Reply Code ST1527) |
| ST1029 | STEEL COMP 1029 |
| ST1030 | STEEL COMP 1030 |
| ST1031 | STEEL COMP 1031 |
| ST1033 | STEEL COMP 1033 |
| ST1034 | STEEL COMP 1034 |
| ST1035 | STEEL COMP 1035 |
| | Steel Comp 1036 (use Reply Code ST1536) |
| ST1037 | STEEL COMP 1037 |
| ST1038 | STEEL COMP 1038 |
| ST1039 | STEEL COMP 1039 |
| ST1040 | STEEL COMP 1040 |
| | Steel Comp 1041 (use Reply Code ST1541) |
| ST1042 | STEEL COMP 1042 |
| ST1043 | STEEL COMP 1043 |
| ST1044 | STEEL COMP 1044 |
| ST1045 | STEEL COMP 1045 |
| ST1046 | STEEL COMP 1046 |
| | Steel Comp 1048 (use Reply Code ST1548) |
| ST1049 | STEEL COMP 1049 |
| ST1050 | STEEL COMP 1050 |
| | Steel Comp 1051 (use Reply Code ST1551) |
| | Steel Comp 1052 (use Reply Code ST1552) |
| ST1053 | STEEL COMP 1053 |

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| <u>REPLY CODE</u> | <u>REPLY (MA01)</u> |
|-------------------|---|
| ST1055 | STEEL COMP 1055 |
| ST1059 | STEEL COMP 1059 |
| ST1060 | STEEL COMP 1060 |
| | Steel comp 1061 (use Reply Code ST1561) |
| ST1064 | STEEL COMP 1064 |
| ST1065 | STEEL COMP 1065 |
| | Steel Comp 1066 (use Reply Code ST1566) |
| ST1069 | STEEL COMP 1069 |
| ST1070 | STEEL COMP 1070 |
| | Steel Comp 1072 (use Reply Code ST1572) |
| ST1074 | STEEL COMP 1074 |
| ST1075 | STEEL COMP 1075 |
| ST1078 | STEEL COMP 1078 |
| ST1080 | STEEL COMP 1080 |
| ST1084 | STEEL COMP 1084 |
| ST1085 | STEEL COMP 1085 |
| ST1086 | STEEL COMP 1086 |
| ST1090 | STEEL COMP 1090 |
| ST1095 | STEEL COMP 1095 |
| ST1108 | STEEL COMP 1108 |
| ST1109 | STEEL COMP 1109 |
| ST1110 | STEEL COMP 1110 |
| | Steel Comp 1111 (use Reply Code ST1211) |
| | Steel Comp 1112 (use Reply Code ST1212) |
| | Steel Comp 1113 (use Reply Code ST1213) |
| ST1115 | STEEL COMP 1115 |
| ST1116 | STEEL COMP 1116 |
| ST1117 | STEEL COMP 1117 |
| ST1118 | STEEL COMP 1118 |
| ST1119 | STEEL COMP 1119 |
| ST1120 | STEEL COMP 1120 |
| ST1132 | STEEL COMP 1132 |
| ST1137 | STEEL COMP 1137 |
| ST1139 | STEEL COMP 1139 |
| ST1140 | STEEL COMP 1140 |
| ST1141 | STEEL COMP 1141 |
| ST1144 | STEEL COMP 1144 |
| ST1145 | STEEL COMP 1145 |
| ST1146 | STEEL COMP 1146 |
| ST1151 | STEEL COMP 1151 |
| ST1211 | STEEL COMP 1211 |
| ST1212 | STEEL COMP 1212 |
| ST1213 | STEEL COMP 1213 |
| ST1215 | STEEL COMP 1215 |
| ST1315 | STEEL COMP 1315 |
| ST1320 | STEEL COMP 1320 |
| ST1330 | STEEL COMP 1330 |
| ST0065 | STEEL COMP 1330H |

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| <u>REPLY CODE</u> | <u>REPLY (MA01)</u> |
|-------------------|---|
| ST1335 | STEEL COMP 1335 |
| ST0066 | STEEL COMP 1335H |
| ST1340 | STEEL COMP 1340 |
| ST0067 | STEEL COMP 1340H |
| ST1345 | STEEL COMP 1345 |
| ST1524 | STEEL COMP 1524 |
| ST1527 | STEEL COMP 1527 |
| ST1536 | STEEL COMP 1536 |
| ST1541 | STEEL COMP 1541 |
| ST1548 | STEEL COMP 1548 |
| ST1551 | STEEL COMP 1551 |
| ST1552 | STEEL COMP 1552 |
| ST1561 | STEEL COMP 1561 |
| ST1566 | STEEL COMP 1566 |
| ST1572 | STEEL COMP 1572 |
| ST2330 | STEEL COMP 2330 |
| ST2340 | STEEL COMP 2340 |
| ST3115 | STEEL COMP 3115 |
| ST3130 | STEEL COMP 3130 |
| ST3135 | STEEL COMP 3135 |
| ST3140 | STEEL COMP 3140 |
| ST0081 | STEEL COMP 3140H |
| | Steel Comp 3310 (use Reply Code ST0026) |
| ST3682 # | STEEL COMP 3682 |
| ST4012 | STEEL COMP 4012 |
| ST4023 | STEEL COMP 4023 |
| ST4024 | STEEL COMP 4024 |
| ST4027 | STEEL COMP 4027 |
| ST4028 | STEEL COMP 4028 |
| ST4032 | STEEL COMP 4032 |
| ST4037 | STEEL COMP 4037 |
| ST0086 | STEEL COMP 4042H |
| ST4047 | STEEL COMP 4047 |
| ST4118 | STEEL COMP 4118 |
| ST4130 | STEEL COMP 4130 |
| ST0090 | STEEL COMP 4130H |
| ST4135 | STEEL COMP 4135 |
| ST0091 | STEEL COMP 4135H |
| ST4137 | STEEL COMP 4137 |
| ST4140 | STEEL COMP 4140 |
| ST0093 | STEEL COMP 4140H |
| ST4142 | STEEL COMP 4142 |
| ST0094 | STEEL COMP 4142H |
| ST4145 | STEEL COMP 4145 |
| ST0095 | STEEL COMP 4145H |
| ST4147 | STEEL COMP 4147 |
| ST4150 | STEEL COMP 4150 |
| ST4161 | STEEL COMP 4161 |

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| <u>REPLY CODE</u> | <u>REPLY (MA01)</u> |
|-------------------|---------------------|
| ST4320 | STEEL COMP 4320 |
| ST4330 | STEEL COMP 4330 |
| ST4337 | STEEL COMP 4337 |
| ST0103 | STEEL COMP 4337H |
| ST4340 | STEEL COMP 4340 |
| ST0104 | STEEL COMP 4340H |
| ST4419 | STEEL COMP 4419 |
| ST4427 | STEEL COMP 4427 |
| ST4615 | STEEL COMP 4615 |
| ST4620 | STEEL COMP 4620 |
| ST0109 | STEEL COMP 4620H |
| ST4621 | STEEL COMP 4621 |
| ST4626 | STEEL COMP 4626 |
| ST4640 | STEEL COMP 4640 |
| ST4718 | STEEL COMP 4718 |
| ST4720 | STEEL COMP 4720 |
| ST4815 | STEEL COMP 4815 |
| ST4817 | STEEL COMP 4817 |
| ST4820 | STEEL COMP 4820 |
| ST5015 | STEEL COMP 5015 |
| ST0193 | STEEL COMP 5046H |
| ST5120 | STEEL COMP 5120 |
| ST5130 | STEEL COMP 5130 |
| ST0118 | STEEL COMP 5130H |
| ST5132 | STEEL COMP 5132 |
| ST5135 | STEEL COMP 5135 |
| ST0120 | STEEL COMP 5135H |
| ST5140 | STEEL COMP 5140 |
| ST0121 | STEEL COMP 5140H |
| ST5145 | STEEL COMP 5145 |
| ST0122 | STEEL COMP 5145H |
| ST5147 | STEEL COMP 5147 |
| ST5150 | STEEL COMP 5150 |
| ST5155 | STEEL COMP 5155 |
| ST5160 | STEEL COMP 5160 |
| ST6118 | STEEL COMP 6118 |
| ST6150 | STEEL COMP 6150 |
| ST0129 | STEEL COMP 6150H |
| ST8615 | STEEL COMP 8615 |
| ST8617 | STEEL COMP 8617 |
| ST0136 | STEEL COMP 8617H |
| ST8620 | STEEL COMP 8620 |
| ST0137 | STEEL COMP 8620H |
| ST8622 | STEEL COMP 8622 |
| ST8625 | STEEL COMP 8625 |
| ST0248 | STEEL COMP 8625H |
| ST8627 | STEEL COMP 8627 |
| ST8630 | STEEL COMP 8630 |

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| <u>REPLY CODE</u> | <u>REPLY (MA01)</u> |
|-------------------|--|
| ST0139 | STEEL COMP 8630H |
| ST8635 | STEEL COMP 8635 |
| ST8637 | STEEL COMP 8637 |
| ST8640 | STEEL COMP 8640 |
| ST0140 | STEEL COMP 8640H |
| ST8642 | STEEL COMP 8642 |
| ST8645 | STEEL COMP 8645 |
| ST8650 | STEEL COMP 8650 |
| ST0143 | STEEL COMP 8650H |
| ST8720 | STEEL COMP 8720 |
| ST8735 | STEEL COMP 8735 |
| ST8740 | STEEL COMP 8740 |
| ST0147 | STEEL COMP 8740H |
| ST8742 | STEEL COMP 8742 |
| ST8822 | STEEL COMP 8822 |
| ST9255 | STEEL COMP 9255 |
| ST9260 | STEEL COMP 9260 |
| ST9310 | STEEL COMP 9310 |
| ST0149 | STEEL COMP 9310H |
| ST9840 | STEEL COMP 9840 |
| | Steel Comp 30202 (use Reply Code ST0202) |
| | Steel Comp 30302 (use Reply Code ST0302) |
| | Steel Comp 30303 (use Reply Code ST0303) |
| | Steel Comp 30303F (use Reply Code ST0077) |
| | Steel Comp 30303SE (use Reply Code ST0079) |
| | Steel Comp 30305 (use Reply Code ST0305) |
| | Steel Comp 30310 (use Reply Code ST0310) |
| | Steel Comp 30321 (use Reply Code ST0321) |
| | Steel Comp 30347 (use Reply Code ST0347) |
| | Steel Comp 51410 (use Reply Code ST0410) |
| | Steel Comp 51416 (use Reply Code ST0416) |
| | Steel Comp 51440A (use Reply Code ST0105) |
| ST0281 | STEEL COMP 51440B |
| ST0282 | STEEL COMP 51440C |
| ST0125 | STEEL COMP 52100 |
| STB000 | STEEL CORROSION RESISTING |
| ST1975 | STEEL PROPERTY CLASS 4.6 |
| ST1976 | STEEL PROPERTY CLASS 4.8 |
| ST1977 | STEEL PROPERTY CLASS 5.8 |
| ST1978 | STEEL PROPERTY CLASS 8.8 |
| ST1979 | STEEL PROPERTY CLASS 9.8 |
| ST1980 | STEEL PROPERTY CLASS 10.9 |
| ST1981 | STEEL PROPERTY CLASS 12.9 |
| ST1982 | STEEL PROPERTY CLASS 45H |
| STC000 # | STEEL STAINLESS |
| ST1099 | STEEL UNS J03002 |
| ST1264 | STEEL UNS K02500 |
| ST1265 | STEEL UNS K02502 |

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| <u>REPLY CODE</u> | <u>REPLY (MA01)</u> |
|-------------------|--|
| ST0552 | STEEL UNS K02600 |
| ST0654 | STEEL UNS K02706 |
| ST0651 | STEEL UNS K04002 |
| ST0655 | STEEL UNS K11900 |
| ST0658 | STEEL UNS K12033 |
| ST0659 | STEEL UNS K12059 |
| ST0661 | STEEL UNS K12238 |
| ST0660 | STEEL UNS K12254 |
| ST0656 | STEEL UNS K13643 |
| ST0657 | STEEL UNS K14358 |
| ST0652 | STEEL UNS K14510 |
| ST0551 | STEEL UNS K23080 |
| ST0532 | STEEL UNS K24065 |
| ST0653 | STEEL UNS S21800 |
| ST0628 | STEEL UNS S34720 |
| ST0629 | STEEL UNS S34723 |
| SNB000 | TIN |
| TTB000 | TITANIUM |
| TTA000 | TITANIUM ALLOY |
| | Titanium Alloy A55 (use Reply Code TT0041) |
| | Titanium Alloy A70 (use Reply Code TT0042) |
| TT0035 # | TITANIUM ALLOY T-A4M |
| TT0036 # | TITANIUM ALLOY T-A6V |
| TT0070 # | TITANIUM ALLOY TI-P01 |
| TT0071 # | TITANIUM ALLOY TI-P02 |
| TT0072 # | TITANIUM ALLOY TI-P04 |
| TT0073 # | TITANIUM ALLOY TI-P11 |
| TT0074 # | TITANIUM ALLOY TI-P63 |
| TT0075 # | TITANIUM ALLOY TI-P68 |
| TT0052 | TITANIUM ALLOY UNS R56400 |
| TT0053 | TITANIUM ALLOY UNS R56401 |
| | Titanium Alloy 1 (use Reply Code TT0039) |
| TT0005 | TITANIUM ALLOY 5 |
| TT0039 | TITANIUM UNS R50250 |
| TT0041 | TITANIUM UNS R50550 |
| TT0042 | TITANIUM UNS R50700 |
| WDC000 | WOOD |
| ZNB000 | ZINC |
| ZNA000 | ZINC ALLOY |

Table 2 - SURFACE TREATMENTS
SURFACE TREATMENTS

| <u>REPLY CODE</u> | <u>REPLY (SF01)</u> |
|-------------------|---------------------|
| ALB000 | ALUMINUM |
| ALA000 | ALUMINUM ALLOY |
| ANA000 | ANODIZE |

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| <u>REPLY CODE</u> | <u>REPLY (SF01)</u> |
|-------------------|---------------------------------|
| XXG000 | BLACK OXIDE |
| CDA000 | CADMIUM |
| CDB000 | CADMIUM ALLOY |
| CNA000 | CARBON |
| CLB000 | CERAMIC |
| CMA000 | CHROMATE |
| CMB000 | CHROMATE ZINC |
| CRA000 | CHROMIUM |
| CLA000 | CLAY (Includes Porcelain) |
| CUA000 | COPPER |
| CUB000 | COPPER ALLOY |
| DCA000 | DICHROMATE |
| DCB000 | DICHROMATE POTASSIUM |
| LCE000 | DISULFIDE MOLYBDENUM |
| ENA000 | ENAMEL |
| ENC000 | ENAMEL SYNTHETIC LUSTERLESS |
| AUA000 | GOLD |
| MTE000 | GUNMETAL |
| LQA000 | LACQUER |
| LQD000 | LACQUER ACRYLIC |
| PBA000 | LEAD |
| NLA000 | NICKEL |
| NLB000 # | NICKEL SILVER |
| XXB000 | OXIDE |
| XXF000 | OXIDE ALUMINUM |
| XXE000 | OXIDE COPPER |
| XXA000 | OXIDE FILM |
| PNA000 | PAINT |
| PNG000 | PAINT LUSTERLESS |
| PSA000 | PASSIVATE |
| PHA000 | PHOSPHATE |
| PHB000 | PHOSPHATE IRON |
| PHC000 | PHOSPHATE MANGANESE |
| PHD000 | PHOSPHATE ZINC |
| PCA000 | PLASTIC |
| PCS000 | PLASTIC EPOXY |
| PCF000 | PLASTIC POLYAMIDE |
| PCB000 | PLASTIC POLYTETRAFLUOROETHYLENE |
| PCY000 | PLASTIC POLYURETHANE |
| RHA000 | RHODIUM |
| AGA000 | SILVER |
| AGB000 | SILVER ALLOY |
| SRA000 | SOLDER |
| LCD000 | SULFIDE MOLYBDENUM |
| SNA000 | TIN |
| TTA000 | TITANIUM |
| VAA000 | VARNISH |
| VAD000 | VARNISH BLACK |

| | |
|-------------------|---------------------|
| <u>REPLY CODE</u> | <u>REPLY (SF01)</u> |
| ZNA000 | ZINC |

Table 3 - HARDNESS RATINGS
HARDNESS RATINGS

| <u>REPLY CODE</u> | <u>REPLY (AC26)</u> |
|-------------------|----------------------------------|
| BH | BRINELL HULTGREN |
| BS | BRINELL STANDARD |
| BT | BRINELL TUNGSTEN CARBIDE |
| RA | ROCKWELL A |
| RB | ROCKWELL B |
| RC | ROCKWELL C |
| RD | ROCKWELL D |
| RE | ROCKWELL E |
| RF | ROCKWELL F |
| RG | ROCKWELL G |
| RK | ROCKWELL K |
| RL | ROCKWELL L |
| RM | ROCKWELL M |
| RP | ROCKWELL N |
| RR | ROCKWELL R |
| RS | ROCKWELL SUPERFICIAL 15-N |
| RT | ROCKWELL SUPERFICIAL 15-T |
| RU | ROCKWELL SUPERFICIAL 30-N |
| RW | ROCKWELL SUPERFICIAL 30-T |
| RN | ROCKWELL SUPERFICIAL 45-N |
| RX | ROCKWELL SUPERFICIAL 45-T |
| SA | SHORE DUROMETER A |
| SD | SHORE DUROMETER D |
| SC | SHORE SCHLEROSCOPE |
| VF | VICKERS OR FIRTH DIAMOND PYRAMID |

Table 4 - NONDEFINITIVE SPEC/STD DATA
NONDEFINITIVE SPEC/STD DATA

| <u>REPLY CODE</u> | <u>REPLY (AD08)</u> |
|-------------------|---------------------|
| AL | ALLOY |
| AN | ANNEX |
| AP | APPENDIX |
| AC | APPLICABILITY CLASS |
| AR | ARRANGEMENT |
| AS | ASSEMBLY |
| AB | ASSORTMENT |
| BX | BOX |
| CY | CAPACITY |
| CA | CASE |

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| <u>REPLY CODE</u> | <u>REPLY (AD08)</u> |
|-------------------|---------------------|
| CT | CATEGORY |
| CL | CLASS |
| CE | CODE |
| CR | COLOR |
| CC | COMBINATION CODE |
| CN | COMPONENT |
| CP | COMPOSITION |
| CM | COMPOUND |
| CD | CONDITION |
| CS | CONSTRUCTION |
| DE | DESIGN |
| DG | DESIGNATOR |
| DW | DRAWING NUMBER |
| EG | EDGE |
| EN | END |
| FY | FAMILY |
| FG | FIGURE |
| FN | FINISH |
| FM | FORM |
| FA | FORMULA |
| GR | GRADE |
| GP | GROUP |
| BA | IMAGE COLOR |
| NS | INSERT |
| TM | ITEM |
| KD | KIND |
| KT | KIT |
| LG | LENGTH |
| LT | LIMIT |
| MK | MARK |
| AA | MARKER |
| ML | MATERIAL |
| BB | MAXIMUM DENSITY |
| MH | MESH |
| ME | METHOD |
| BC | MINIMUM DENSITY |
| MD | MODEL |
| MT | MOUNTING |
| NR | NUMBER |
| PT | PART |
| PN | PATTERN |
| PC | PHYSICAL CONDITION |
| PS | PIECE |
| PL | PLAN |
| PR | POINT |
| QA | QUALITY |
| RN | RANGE |
| RT | RATING |

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| <u>REPLY CODE</u> | <u>REPLY (AD08)</u> |
|-------------------|---------------------|
| RF | REFERENCE NUMBER |
| SC | SCHEDULE |
| SB | SECTION |
| SL | SELECTION |
| SE | SERIES |
| SV | SERVICE |
| SX | SET |
| SA | SHADE |
| SH | SHAPE |
| SG | SHEET |
| SZ | SIZE |
| PZ | SPECIES |
| SQ | SPECIFICATION SHEET |
| SD | SPEED |
| ST | STYLE |
| SS | SUBCLASS |
| SF | SUBFORM |
| SP | SUBTYPE |
| SN | SURFACE CONDITION |
| SY | SYMBOL |
| SM | SYSTEM |
| TB | TABLE |
| TN | TANNAGE |
| TP | TEMPER |
| TX | TEXTURE |
| TK | THICKNESS |
| TT | TREATMENT |
| TR | TRIM |
| TY | TYPE |
| YN | UNIT |
| VA | VARIETY |
| WT | WEIGHT |
| WD | WIDTH |

Table 5 - THREAD SERIES

THREAD SERIES

| <u>REPLY CODE</u> | <u>REPLY (AH06)</u> |
|-------------------|----------------------------------|
| AM | ACME |
| BA | BA |
| BF | BSF |
| BT | BSP.F INT |
| BW | BSW |
| TT | BUTTRESS |
| FM | FORMING |
| DX # | FRENCH CONDUIT THREAD NF C68-190 |
| SM | ISO M |

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| <u>REPLY CODE</u> | <u>REPLY (AH06)</u> |
|-------------------|---------------------------------|
| SS | ISO S |
| EM | M |
| MJ | MJ |
| NG | NGO |
| NH | NH |
| | Nonstandard (use Reply Code NS) |
| SP | NPS |
| SF | NPSF |
| SH | NPSH |
| PS | NPSI |
| SL | NPSL |
| PM | NPSM |
| NP | NPT |
| SQ | SQUARE |
| SA | STUB ACME |
| UN | UN |
| NC | UNC |
| NE | UNEF |
| NF | UNF |
| MD | UNF-MODIFIED |
| NJ | UNJ |
| JC | UNJC |
| JE | UNJEF |
| JF | UNJF |
| JS | UNJS |
| NM | UNM |
| NS | UNS |
| WW | WHITWORTH |
| WF | WHITWORTH PIPE, DIN 259 |
| WG # | WHITWORTH PIPE, DIN 2999 |
| WP # | WHITWORTH PIPE, DIN 3858 |

Table 6 - STRENGTH GRADE DESIGNATIONS #
STRENGTH GRADE DESIGNATIONS #

| <u>REPLY CODE</u> | <u>REPLY (AN67)</u> |
|-------------------|---------------------|
| AZ | 04 |
| AP | 4 |
| AQ | 5 |
| AY | 06 |
| AR | 6 |
| AS | 8 |
| AT | 10 |
| AW | 12 |
| AX | 14 |
| AB | 3.6 |
| AC | 4.6 |

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| <u>REPLY CODE</u> | <u>REPLY (AN67)</u> |
|-------------------|---------------------|
| AD | 4.8 |
| AE | 5.6 |
| AF | 5.8 |
| AG | 6.6 |
| AH | 6.8 |
| AJ | 6.9 |
| AK | 8.8 |
| AL | 10.9 |
| AM | 12.9 |
| AN | 14.9 |

Reference Drawing Groups

| | |
|--|-----|
| REFERENCE DRAWING GROUP A Tables | 100 |
| REFERENCE DRAWING GROUP A | 104 |
| REFERENCE DRAWING GROUP B Tables | 150 |
| REFERENCE DRAWING GROUP B | 152 |
| REFERENCE DRAWING GROUP C Tables | 154 |
| REFERENCE DRAWING GROUP C | 155 |
| REFERENCE DRAWING GROUP D Tables | 158 |
| REFERENCE DRAWING GROUP D | 160 |
| REFERENCE DRAWING GROUP E Tables | 164 |
| REFERENCE DRAWING GROUP E | 165 |
| REFERENCE DRAWING GROUP F Tables | 166 |
| REFERENCE DRAWING GROUP F | 167 |
| REFERENCE DRAWING GROUP G Tables | 172 |
| REFERENCE DRAWING GROUP G | 173 |
| REFERENCE DRAWING GROUP H | 174 |

REFERENCE DRAWING GROUP A Tables
NUT STYLES

INDEX OF MASTER REQUIREMENT CODES

Enter the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value.
(e.g., ASDBJAA0.125*; ASDBJLA3.1*; ASDBJAB0.120\$\$JAC0.130*)

NOTES: 1. FOR STYLES 25A, 25B, 30A, 30B, 33A, AND 33B, ABKU MUST BE EQUAL TO OR LESS THAN ACVN. FOR STYLES 29, 35A, 35B, AND 35D, ACVN MUST EXCEED ADBP. 2. FOR STYLES 34A AND 34B, WHERE THE DIMENSIONS FOR MRC ADBN ARE NOT IDENTICAL FOR EACH END AND THE DIMENSIONS FOR MRC ADBP ARE NOT IDENTICAL FOR EACH END, USE IDENTIFIED SECONDARY ADDRESS CODING INDICATOR FROM APPENDIX C, TABLE 4. THE SMALLER DIAMETER WILL ALWAYS BE THE FIRST END, AND THEN GIVE THE THICKNESS IN THE SAME RELATED SEQUENCE. (E.G., ADBN2ARJAA0.230*; ADBN2ASJAA0.240*; ADBN2ARJLA5.8*; ADBN2ASJLA6.1*) 3. FOR STYLE 26, WHERE THE THREAD LENGTH, AASA, FOR EACH END ARE NOT IDENTICAL, USE IDENTIFIED SECONDARY ADDRESS CODING INDICATOR FROM APPENDIX C, TABLE 4. THE SHORTER THREAD LENGTH WILL ALWAYS BE THE FIRST END. (E.G., AASA2ARJAA0.437* AASA2ASJAA0.500*; AASA2ARJLA11.1*; AASA2ASJLA12.7*)

| <u>REPLY CODE</u> | <u>REPLY (AA05)</u> |
|-------------------|---------------------|
| A | INCHES |
| L | MILLIMETERS |

| <u>REPLY CODE</u> | <u>REPLY (AC20)</u> |
|-------------------|---------------------|
| A | NOMINAL |
| B | MINIMUM |
| C | MAXIMUM |

For MRC ABKW: For plate nuts and gang channel nuts with shells or caps, give this dimension in addition to ADEA. See illustrations in Appendix B, Reference Drawing Group G for method of measuring MRC ABKW.

For MRC ADEA: Excludes shell, cap, or washer for plate nuts with shells or caps, also reply to MRC ABKW, Overall Height.

| <u>MRC</u> | <u>Mode Code</u> | <u>Name of Dimension</u> |
|------------|------------------|--------------------------|
| AASA | J | THREAD LENGTH |

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APPENDIX B

| <u>MRC</u> | <u>Mode Code</u> | <u>Name of Dimension</u> |
|------------|------------------|---|
| AASY | J | DISTANCE FROM CENTERLINE TO FLAT |
| AAVL | J | PILOT DIAMETER |
| AAVM | J | PILOT LENGTH |
| AAVX | J | WASHER OUTSIDE DIAMETER |
| AAXF | J | WING SPREAD WIDTH |
| ABGB | J | WIDTH ACROSS CORNERS |
| ABHC | J | OVERALL WIDTH |
| ABKK | J | FLANGE DIAMETER |
| ABKU | J | FLANGE THICKNESS |
| ABKW | J | OVERALL HEIGHT |
| ABNK | J | SHOULDER WIDTH |
| ABPH | J | SMALL END DIAMETER |
| ABPM | J | BODY DIAMETER |
| ABPX | J | MATERIAL THICKNESS |
| ABQU | J | DRIVE POINT DEPTH |
| ABXQ | J | FLATTED PORTION LENGTH |
| ACTC | J | BALL SEAT RADIUS |
| ACTD | J | NUT DIAMETER |
| ACUU | J | BASE WIDTH |
| ACVN | J | NUT LENGTH |
| ACYB | J | BASE THICKNESS |
| ADAZ | J | THRU-HOLE DIAMETER |
| ADBA | J | BARREL HEIGHT |
| ADBB | J | DISTANCE FROM CENTERLINE OF THREADED HOLE TO END OF NUT |
| ADBC | J | FLATTED PORTION THICKNESS |
| ADBE | J | PILOT WIDTH |
| ADBG | J | NUT THICKNESS |
| ADBH | J | DRIVE POINT WIDTH |
| ADBJ | J | UNDERCUT THICKNESS |
| ADBK | J | KNURL WIDTH |
| ADBL | J | SMALL END LENGTH |
| ADBN | J | BOSS DIAMETER |
| ADBP | J | BOSS THICKNESS |
| ADBR | J | DISTANCE FROM BASE TO CENTER OF APERTURE |
| ADEA | J | NUT HEIGHT |
| ADEB | J | PLATE THICKNESS |
| ADEC | J | PLATE WIDTH |
| ADED | J | NUT WIDTH |
| ADEE | J | PANEL THICKNESS |
| ADEF | J | DISTANCE FROM CENTER OF APERTURE TO END |
| ADEG | J | APERTURE CENTER TO CENTER DISTANCE |

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APPENDIX B

| <u>MRC</u> | <u>Mode Code</u> | <u>Name of Dimension</u> |
|------------|------------------|--------------------------------|
| ADEK | J | CUTOFF EDGE TO CENTER DISTANCE |
| ADEM | J | WASHER THICKNESS |
| ADEN | J | EYE BODY THICKNESS |
| ADEP | J | HOLE WIDTH |
| ADEQ | J | HOLE HEIGHT |
| AFGF | J | DRIVE POINT DIAMETER |
| AFGG | J | FLANGE WIDTH ACROSS FLATS |
| AFGH | J | NUT WIDTH ACROSS FLATS |
| AFGJ | J | BOSS WIDTH ACROSS FLATS |
| AFMV | J | INSIDE WIDTH ACROSS FLATS |
| AFQN | J | FLANGE LENGTH |
| AGFF | J | FLANGE WIDTH |
| AGQA | J | LARGEST DIAMETER |
| AGWM | J | LARGEST OUTSIDE DIAMETER |
| ASDB | J | WIDTH ACROSS FLATS |
| AYTY | J | SMALLEST DIAMETER |
| BRQL | J | LENGTH TO SHOULDER |
| BSPX | J | SMALLEST INSIDE DIAMETER |
| CFPT | J | PACKING RECESS DIAMETER |
| CFPW | J | PACKING RECESS DEPTH |
| CFQB | J | SHOULDER STEP WIDTH |
| CFQC | J | SHOULDER SEAT DIAMETER |

Enter the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value. (e.g., CRRBJDA45.0*; CRRBJRA1.6*; CRRBJDB40.0\$\$JDC47.0*)

| <u>REPLY CODE</u> | <u>REPLY (AP38)</u> |
|-------------------|---------------------|
| D | DEGREES |
| R | RADIANS |

| <u>REPLY CODE</u> | <u>REPLY (AC20)</u> |
|-------------------|---------------------|
| A | NOMINAL |
| B | MINIMUM |
| C | MAXIMUM |

| <u>MRC</u> | <u>Mode Code</u> | <u>Name of Dimension</u> |
|------------|------------------|--------------------------|
| CQYG | J | CONE SEAT ANGLE |
| CRRB | J | SEAT ANGL |

Enter the quantity. (e.g., ADBMA6*)

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APPENDIX B

| <u>MRC</u> | <u>Mode Code</u> | <u>Name of Dimension</u> |
|------------|------------------|--------------------------|
| ADBM | A | DRIVE POINT QUANTITY |
| ADEH | A | GRIPPING NOTCH QUANTITY |
| CJLK | A | APERTURE QUANTITY |

| <u>MRC</u> | <u>Mode Code</u> | <u>Name of Dimension</u> |
|------------|------------------|----------------------------|
| CZGH # | J | NUT MAXIMUM FLOATING WIDTH |

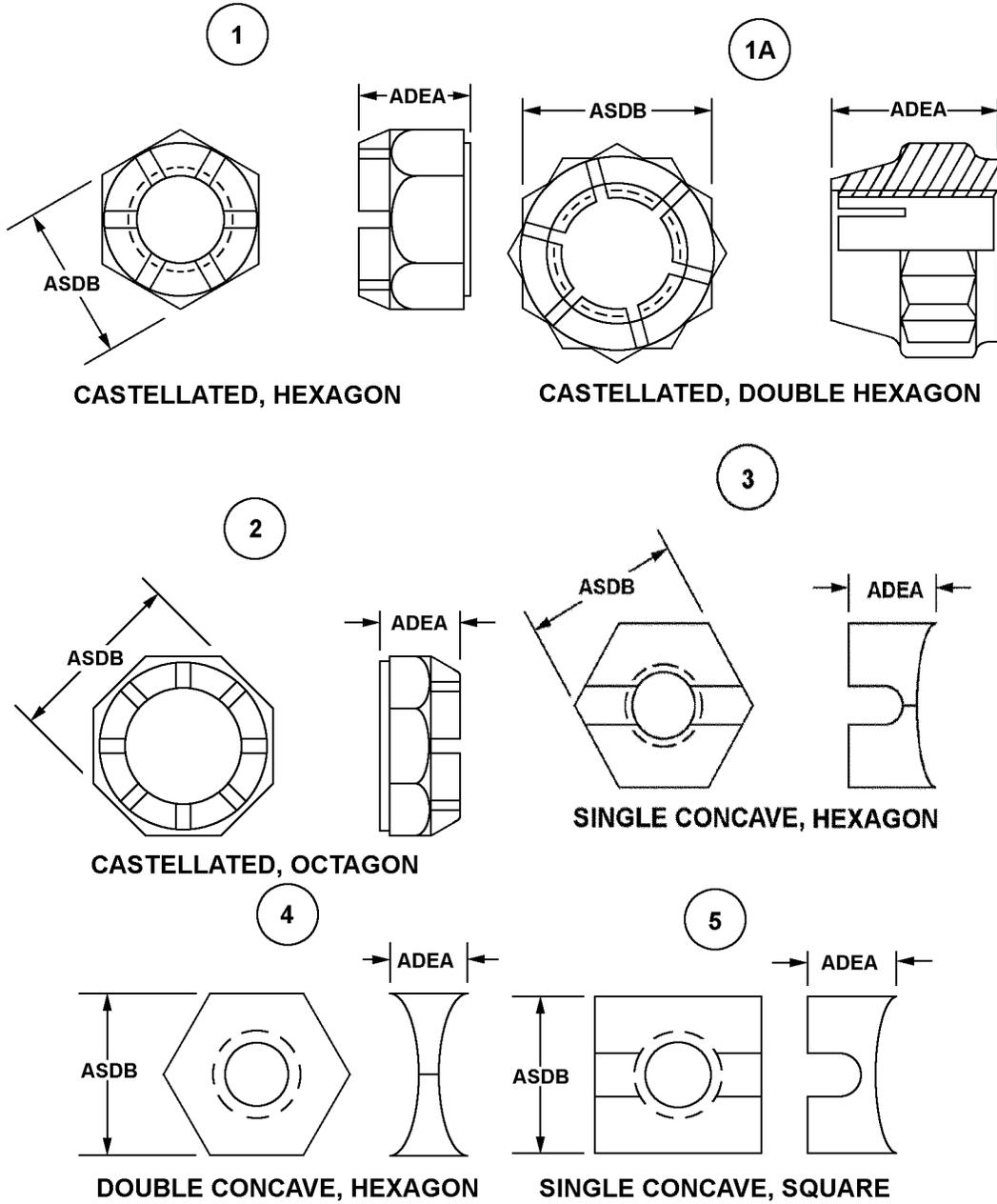
Enter the applicable Reply Code from the table below, followed by the numeric value. (e.g., CZGHJA0.500*; CZGHJL12.5*)

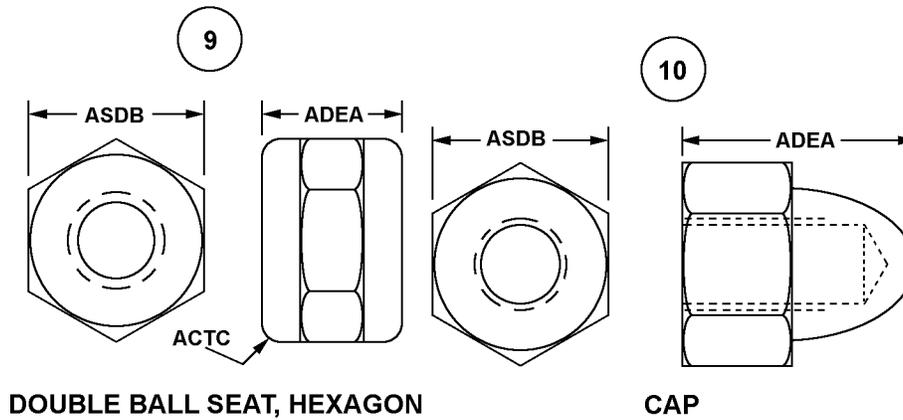
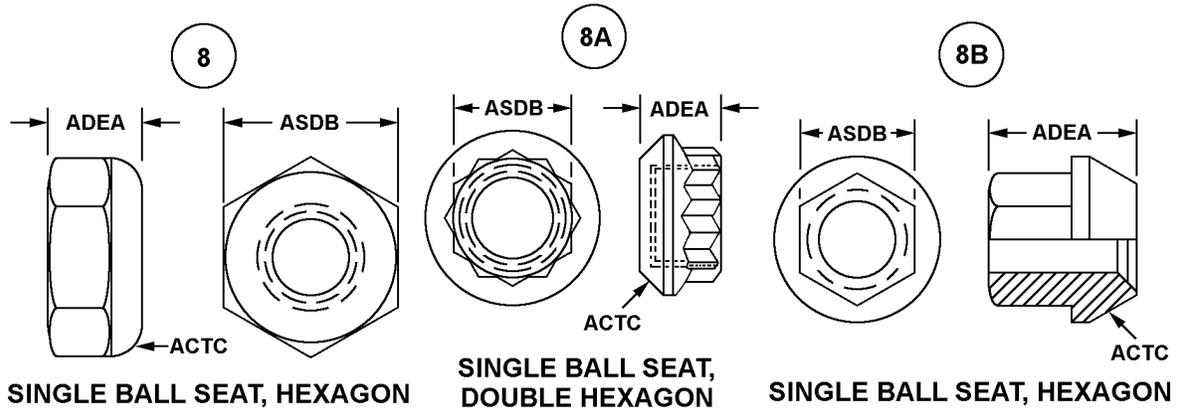
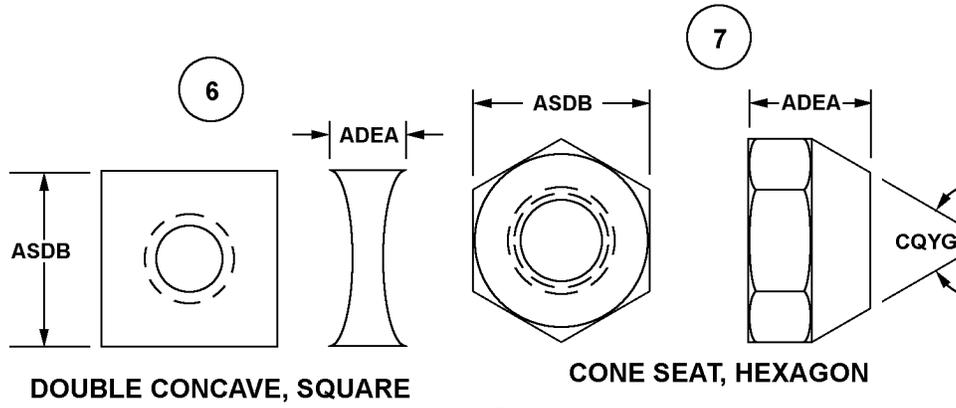
| <u>REPLY CODE</u> | <u>REPLY (AA05)</u> |
|-------------------|---------------------|
| A | INCHES |
| L | MILLIMETERS |

REFERENCE DRAWING GROUP A

NUTS

BREAKAWAY; CAP; DODECAGON; HEXAGON; DOUBLE HEXAGON; GANG
CHANNEL; INTERNAL WRENCHING; OCTAGON; PENTAGON; RECTANGULAR;
SQUARE.





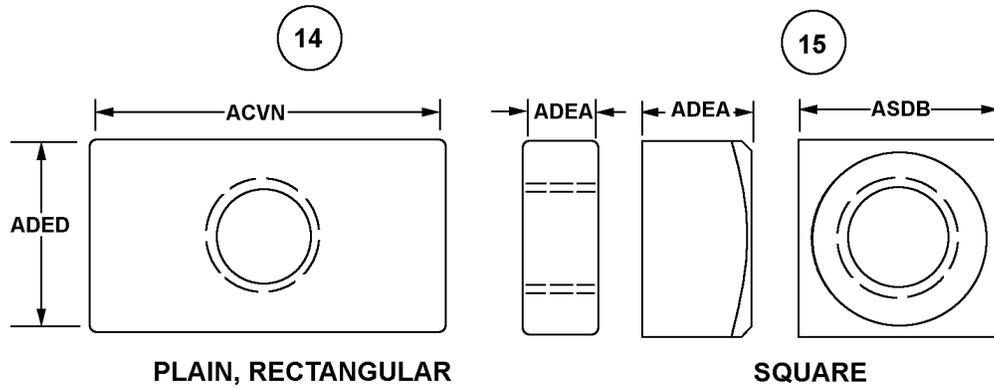
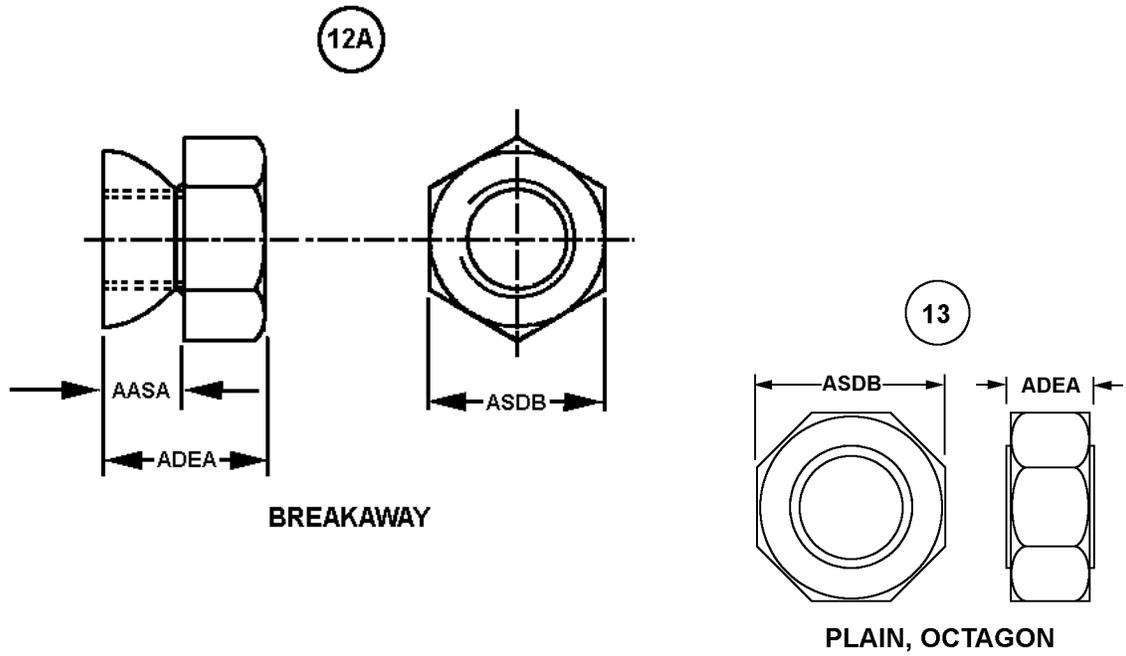
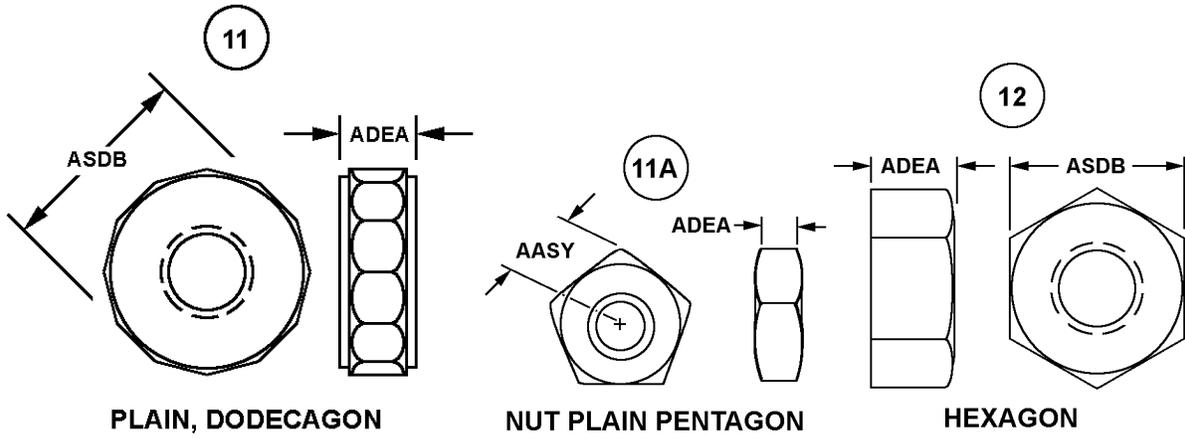


FIG A021A
APPENDIX B

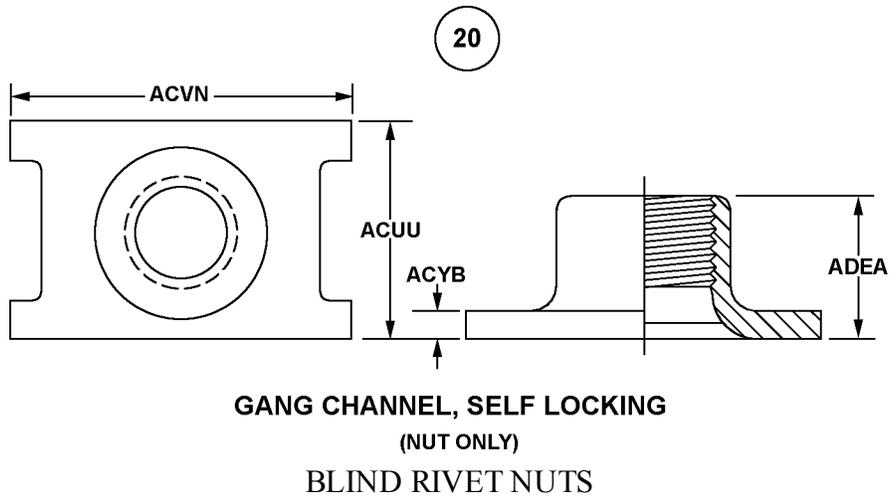
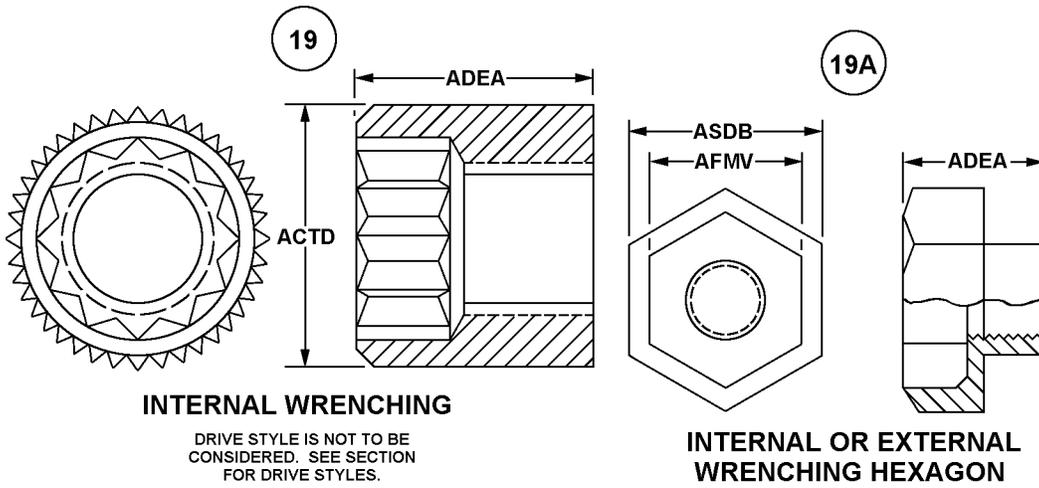
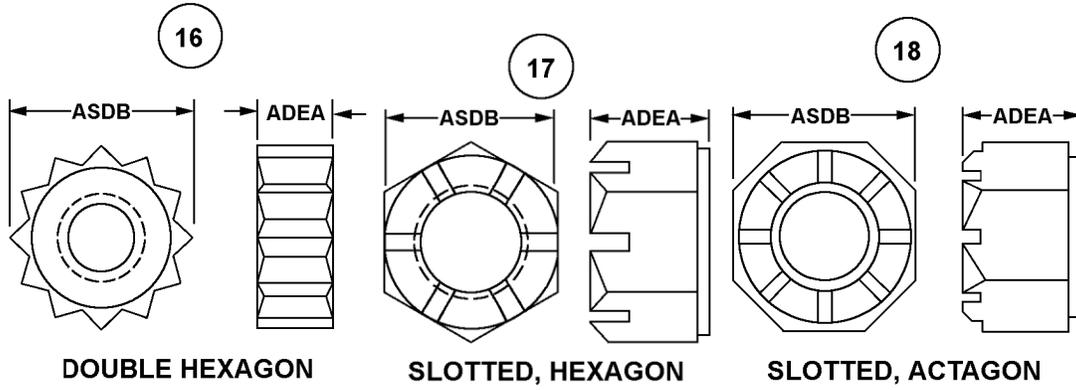
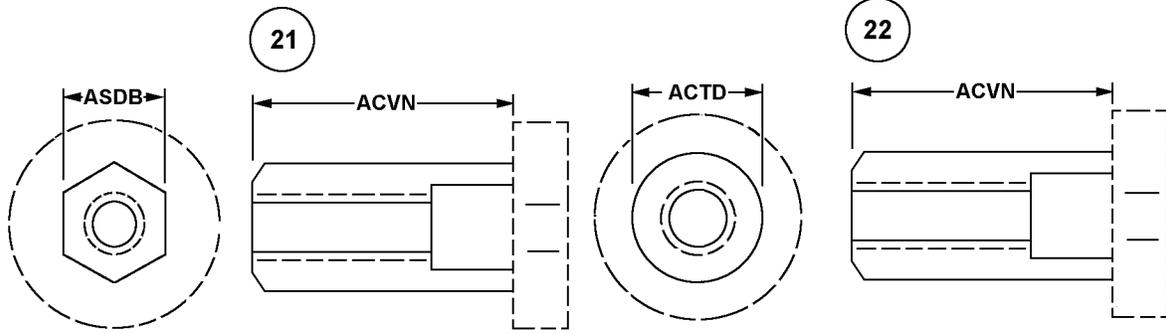
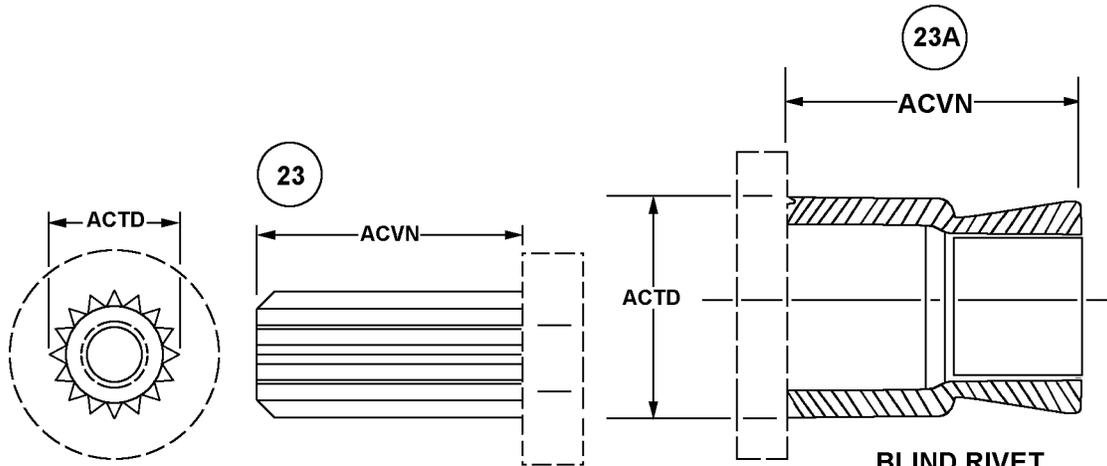


FIG A021A
APPENDIX B



**BLIND RIVET
W/ HEX SHANK**

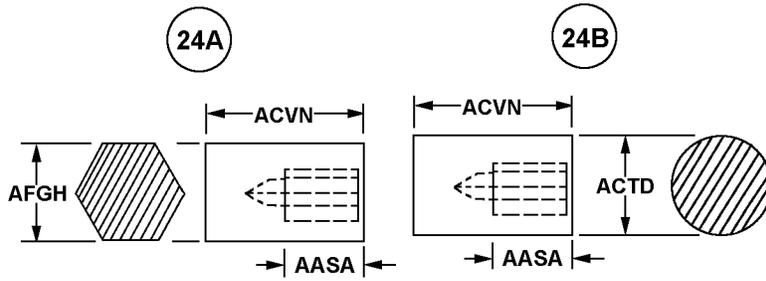
**BLIND RIVET
W/ SMOOTH ROUND SHANK**



**BLIND RIVET
W/ SPLINED SHANK**

**BLIND RIVET
W/ BREAKAWAY SHANK**

SLEEVE NUTS



SLEEVE

SLEEVE

FIG A021A
APPENDIX B

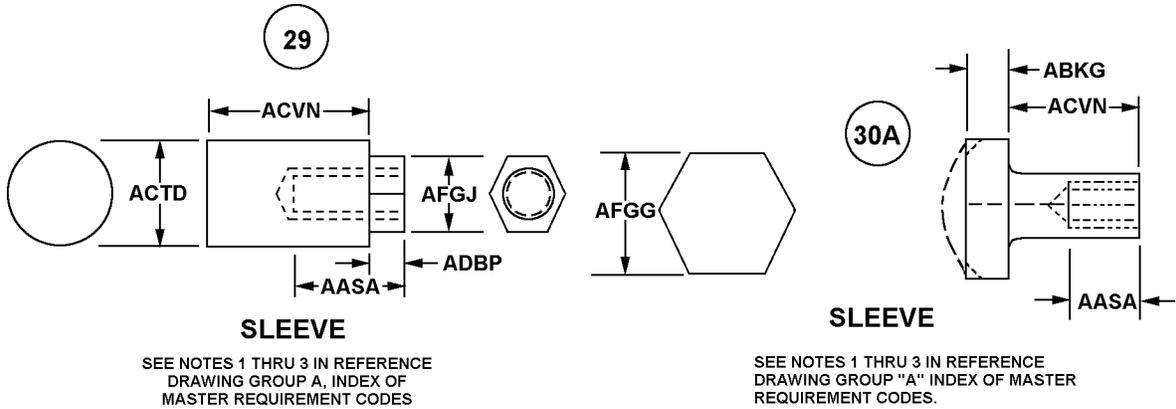
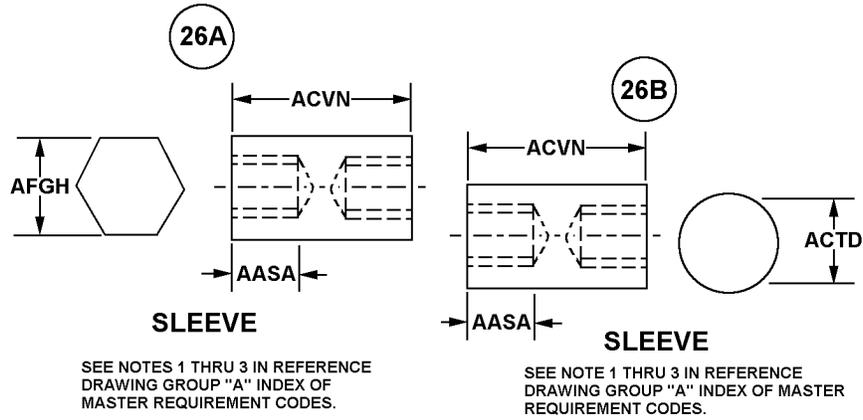
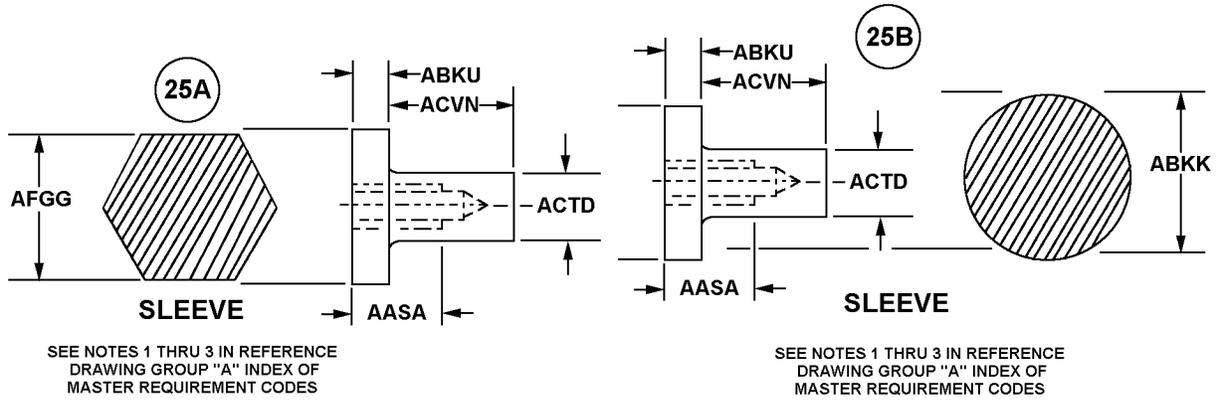
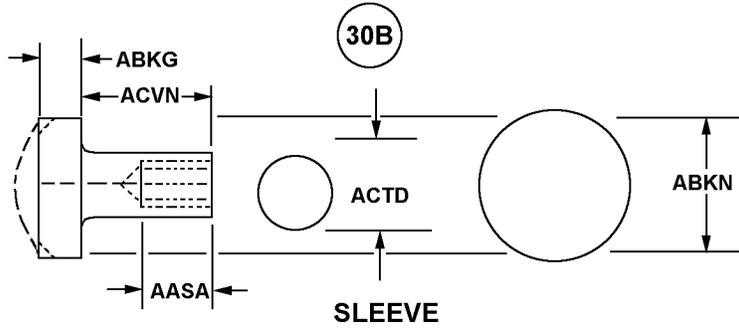
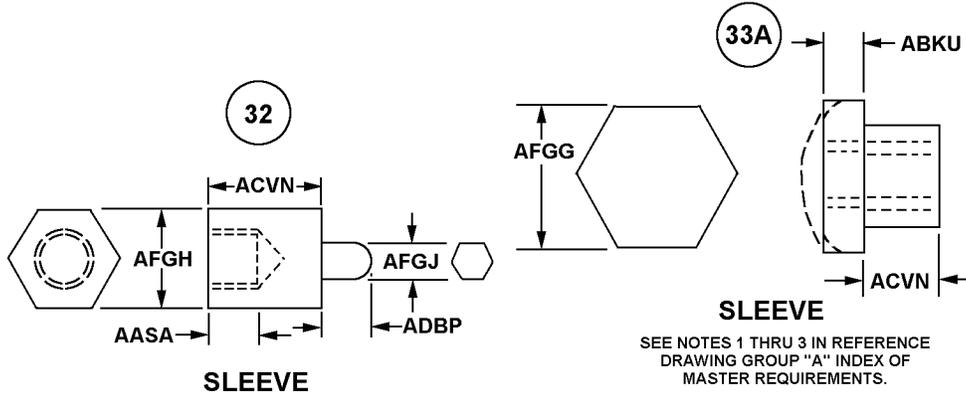


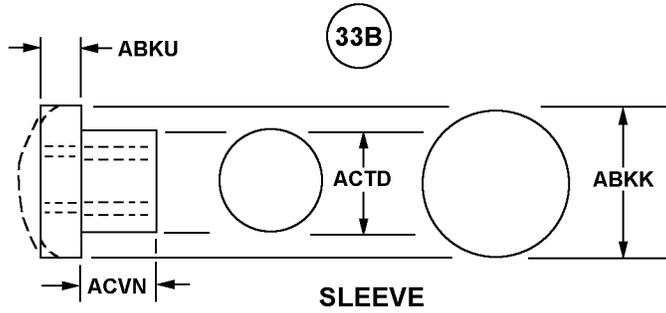
FIG A021A
APPENDIX B



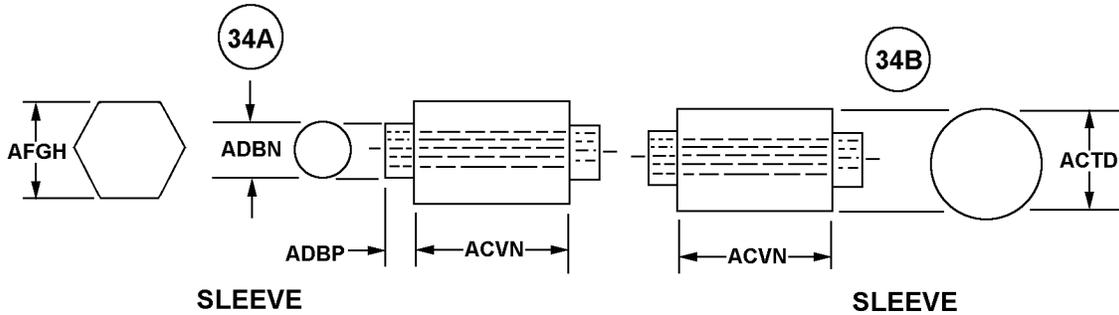
SEE NOTES 1 THRU 3 IN REFERENCE
DRAWING GROUP "A" INDEX OF
MASTER REQUIREMENT CODES.



SEE NOTES 1 THRU 3 IN REFERENCE
DRAWING GROUP "A" INDEX OF
MASTER REQUIREMENTS.



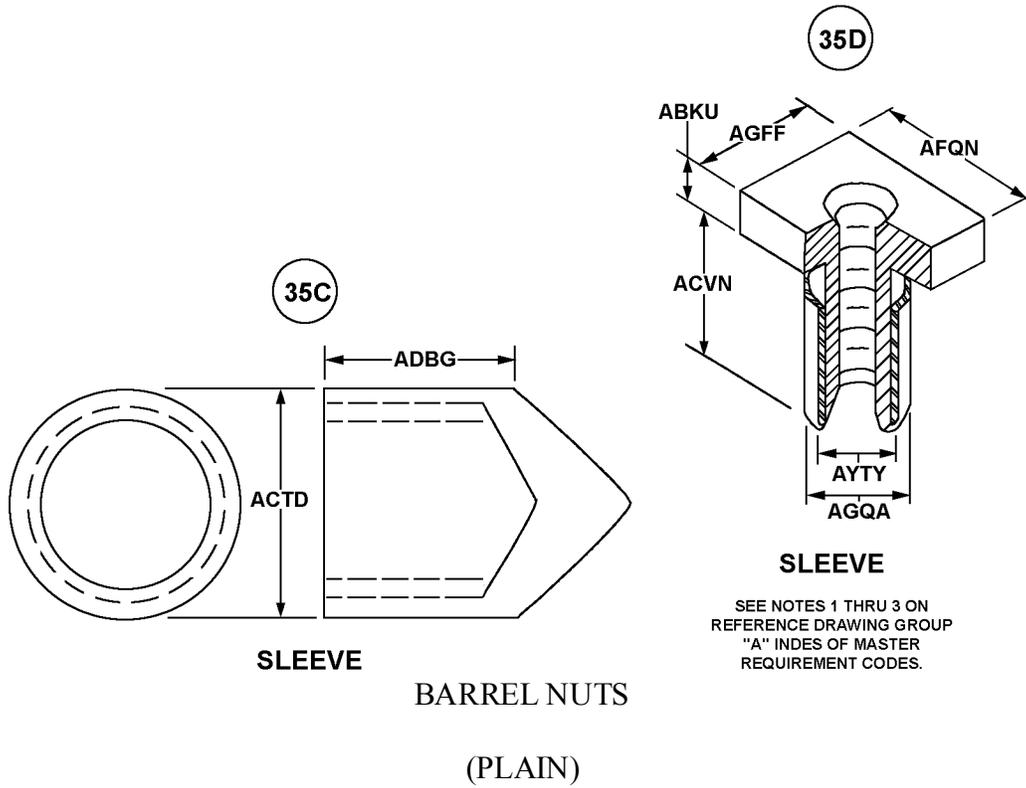
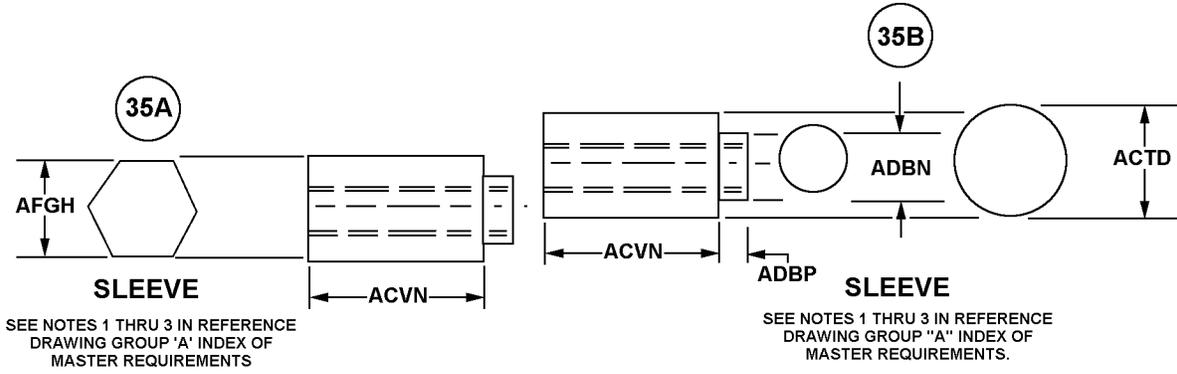
SEE NOTES 1 THRU 3 IN REFERENCE
DRAWING GROUP "A" INDEX OF
MASTER REQUIREMENTS

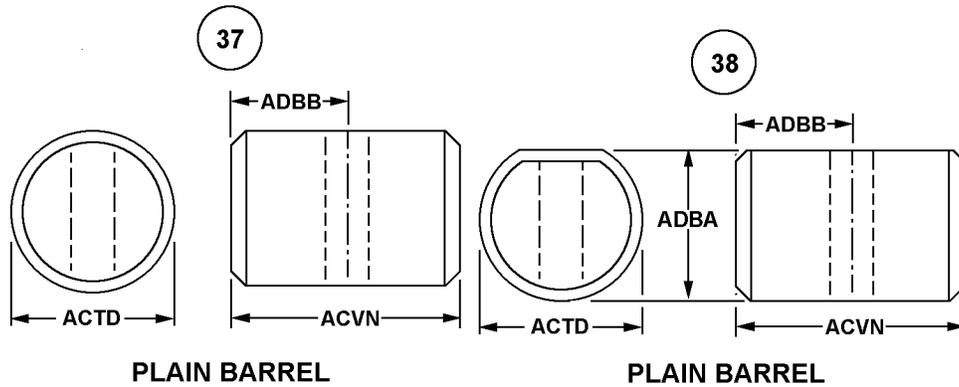
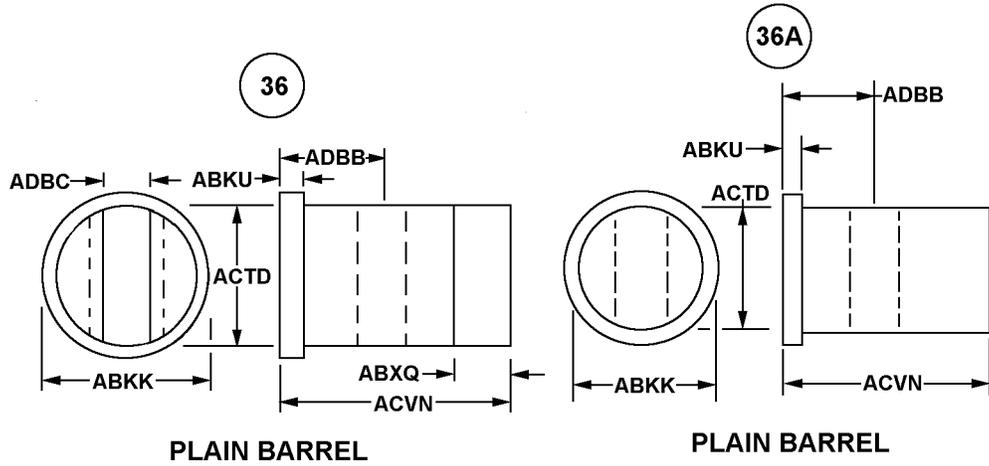


SEE NOTES 1 THRU 3 IN REFERENCE
DRAWING GROUP "A" INDEX OF
MASTER REQUIREMENTS

SEE NOTES 1 THRU 3 IN REFERENCE
DRAWING GROUP "A" INDEX OF
MASTER REQUIREMENTS

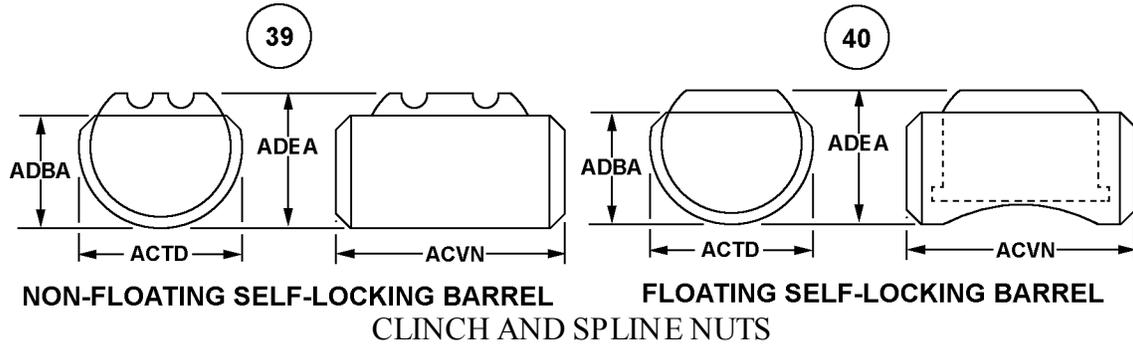
FIG A021A
APPENDIX B

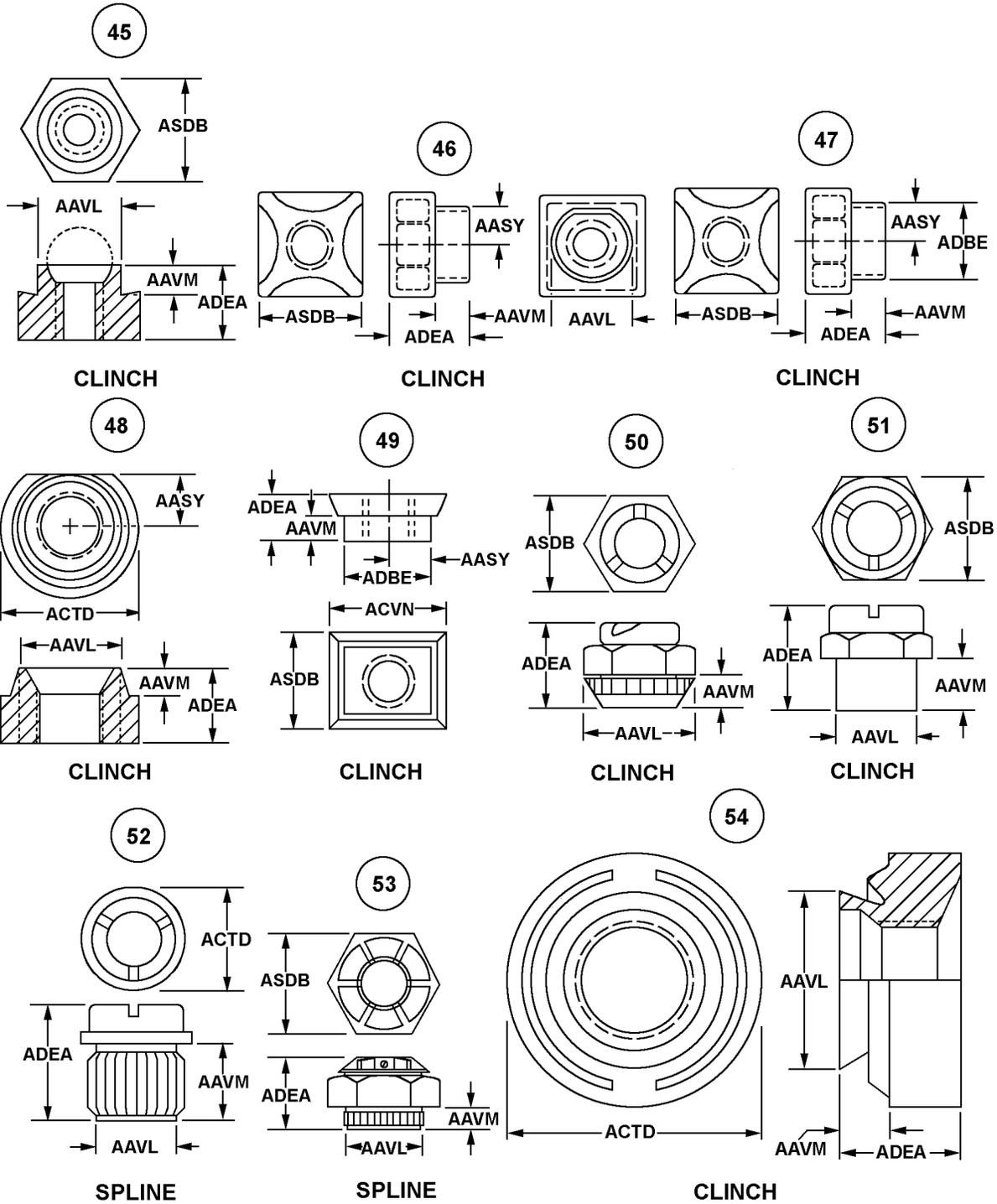


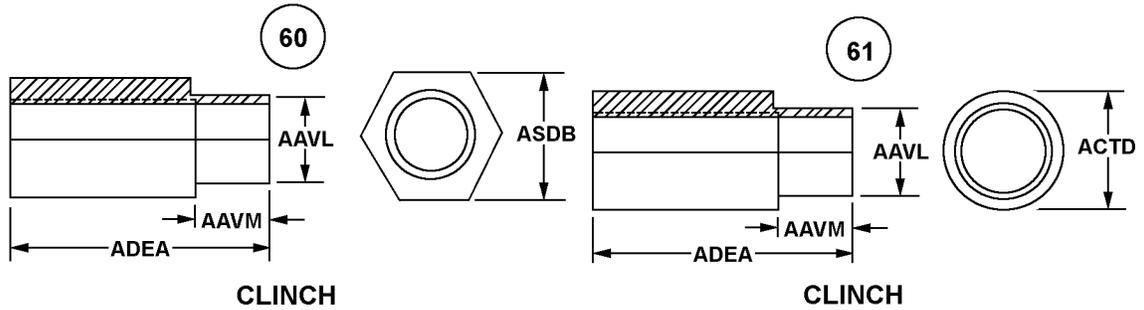
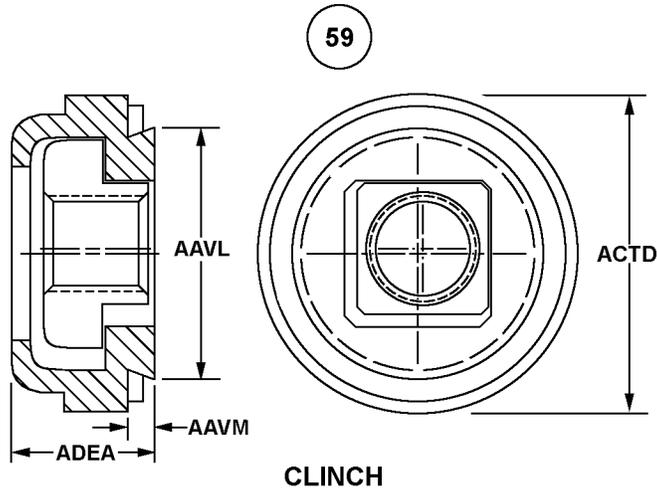
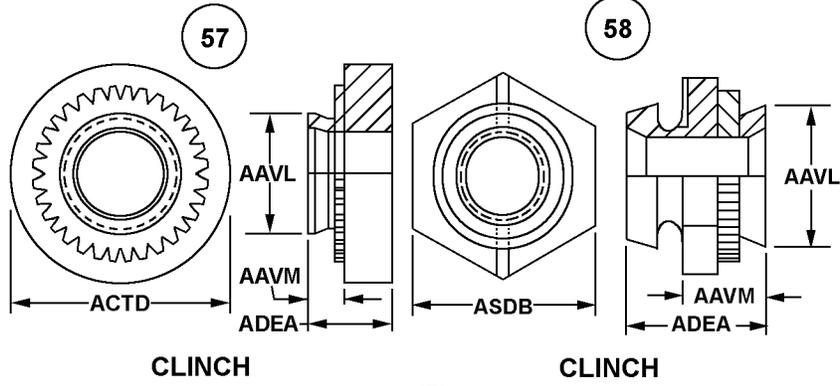
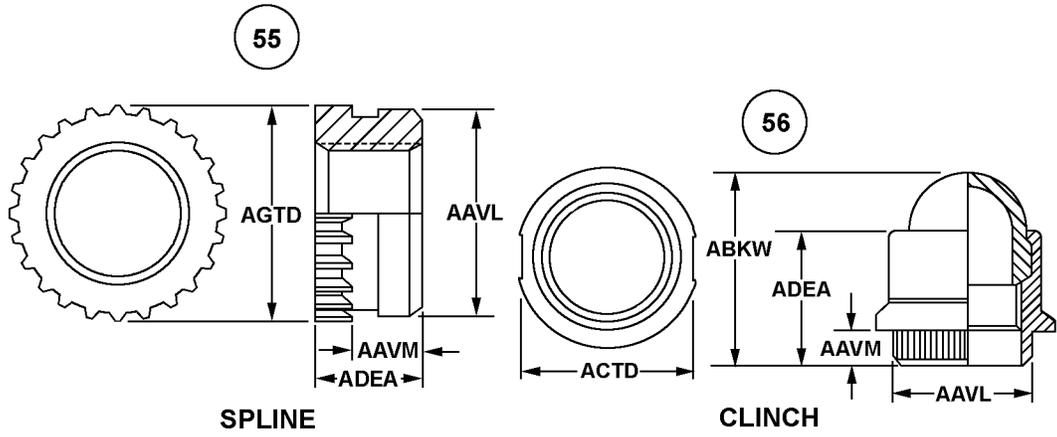


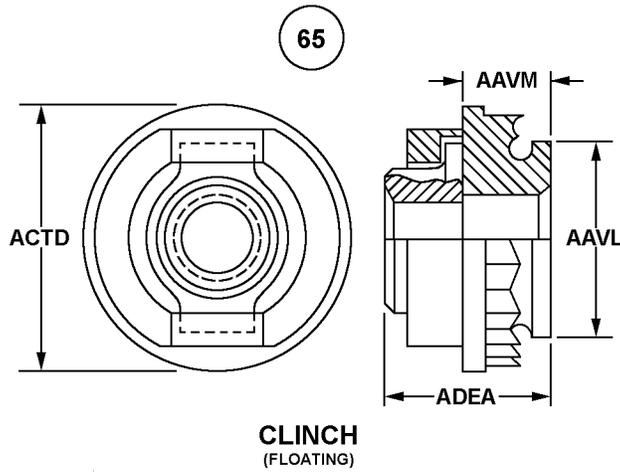
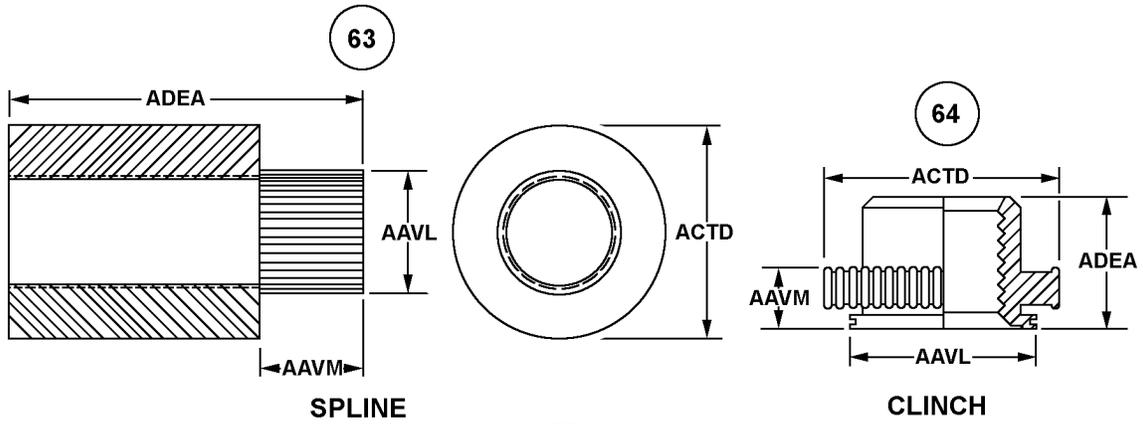
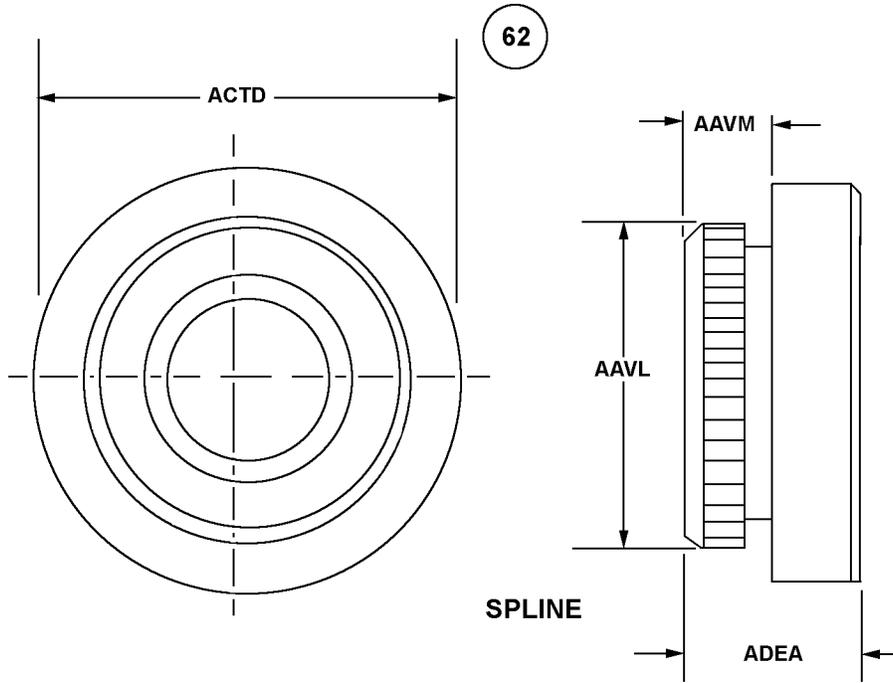
BARREL NUTS

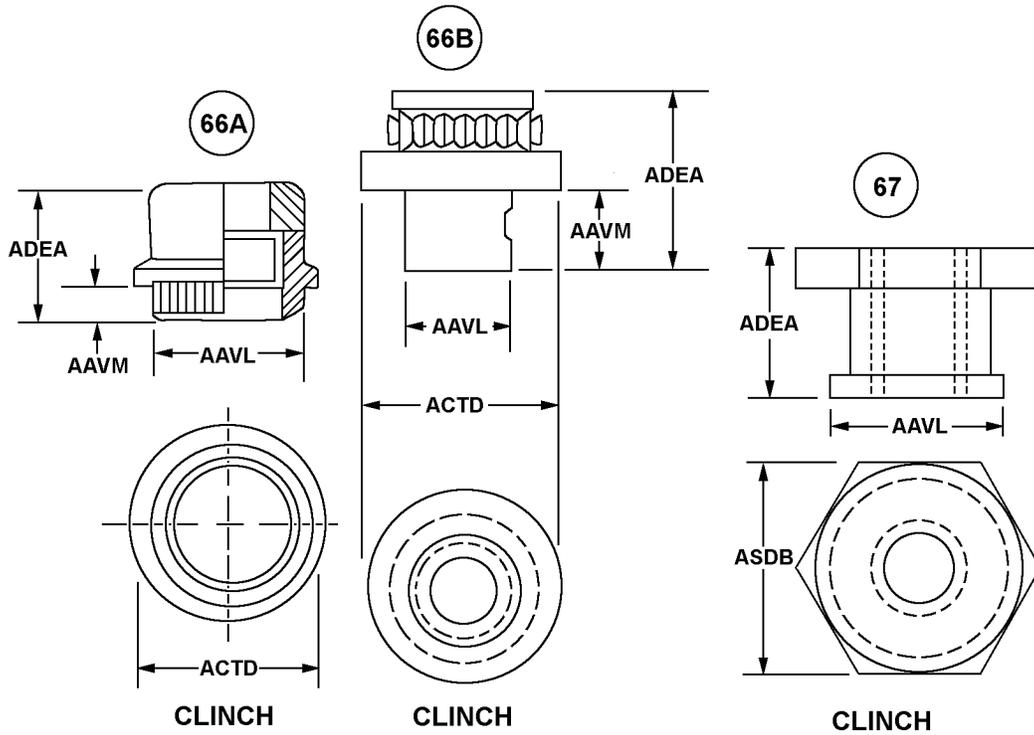
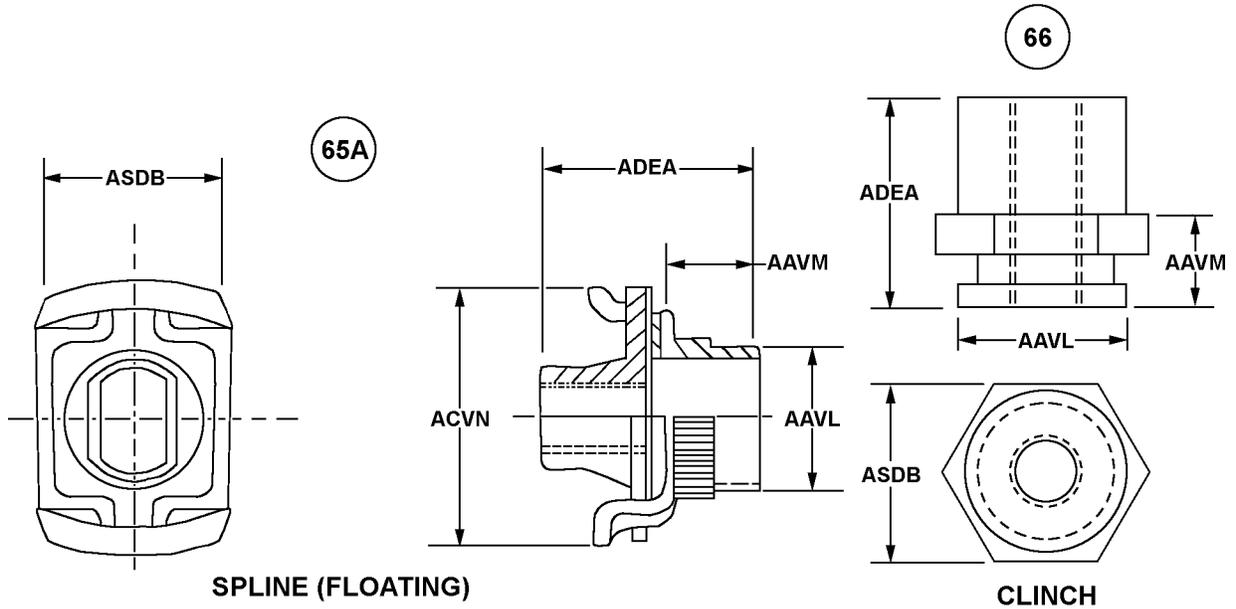
(SELF-LOCKING)

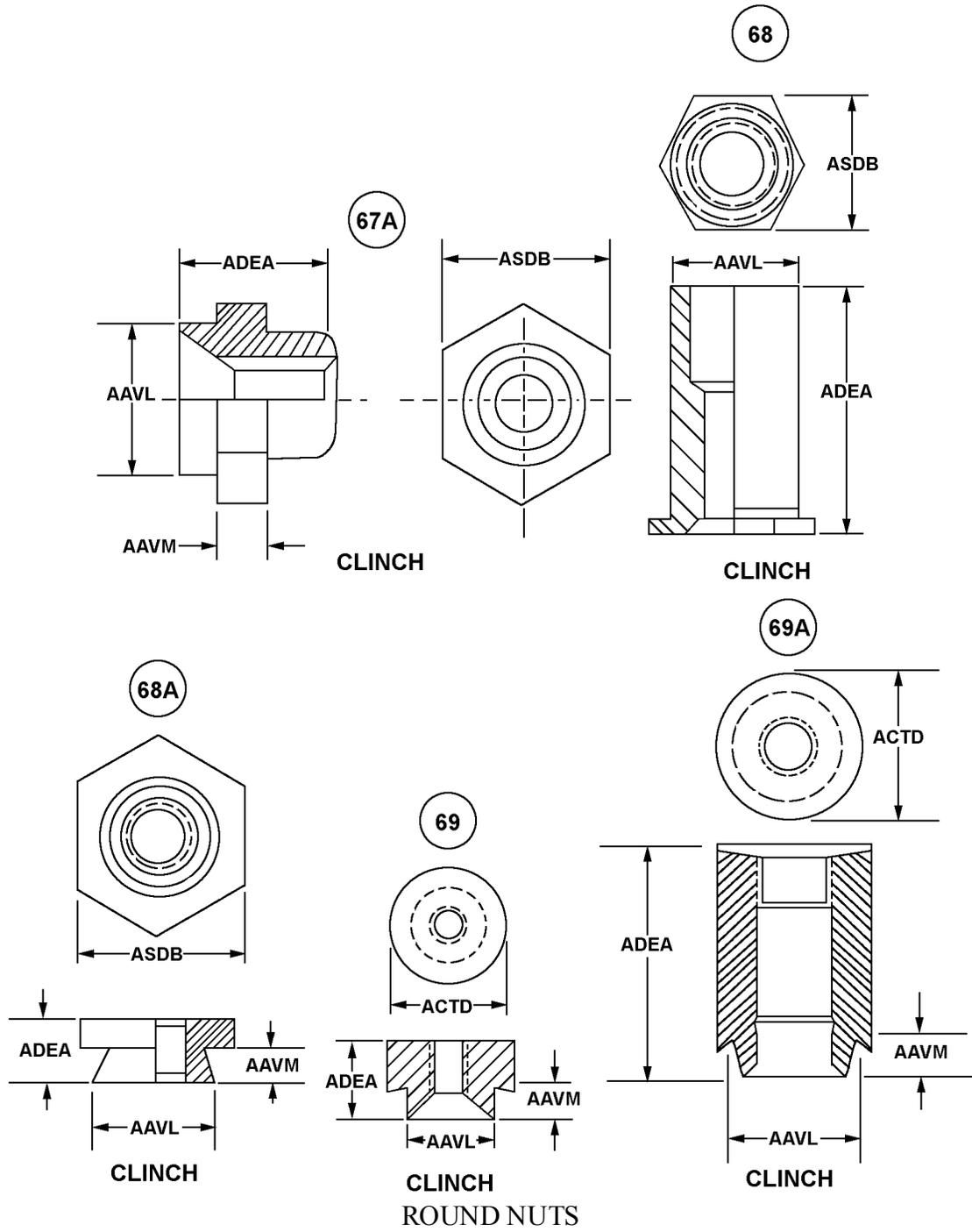


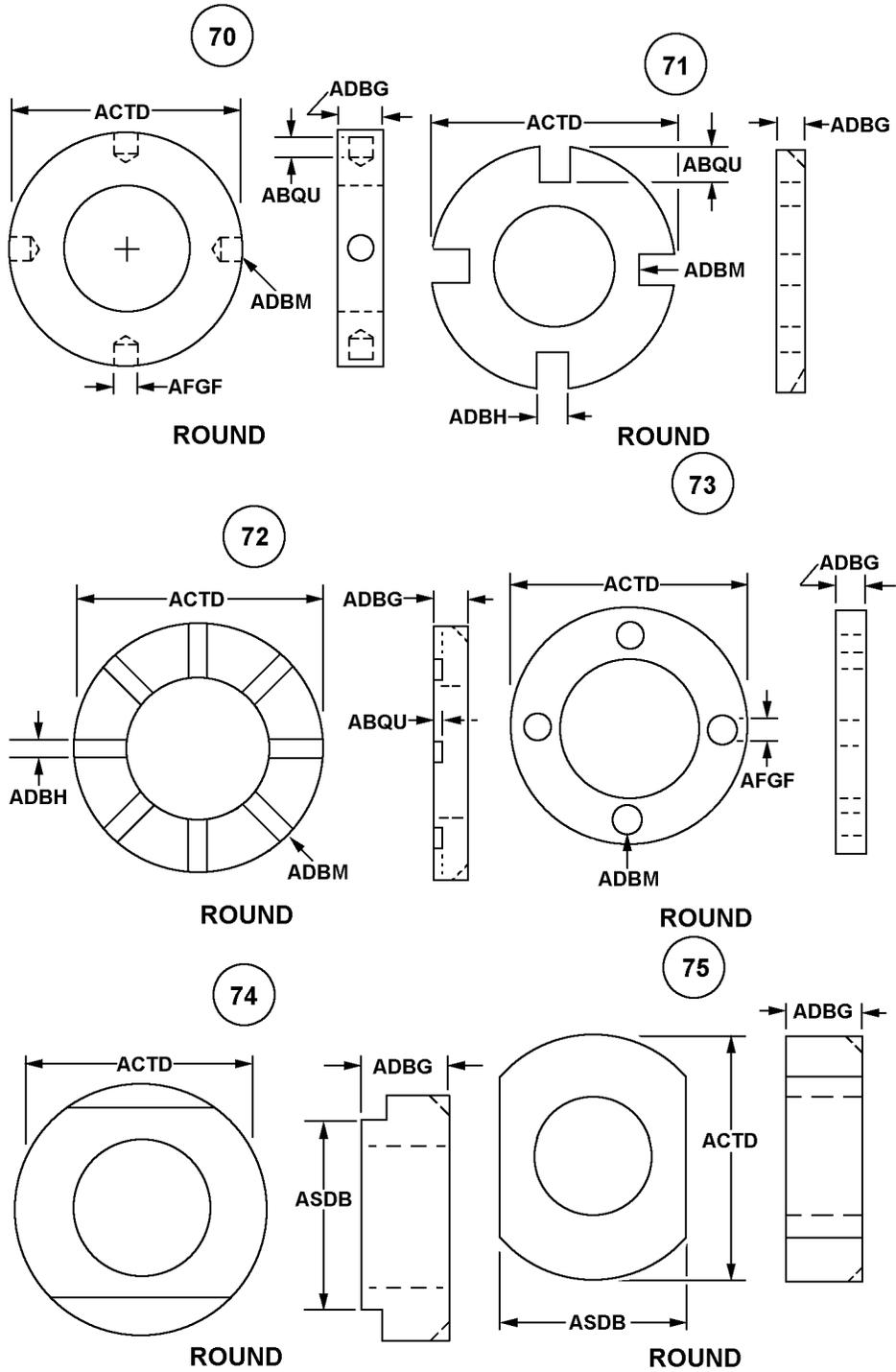


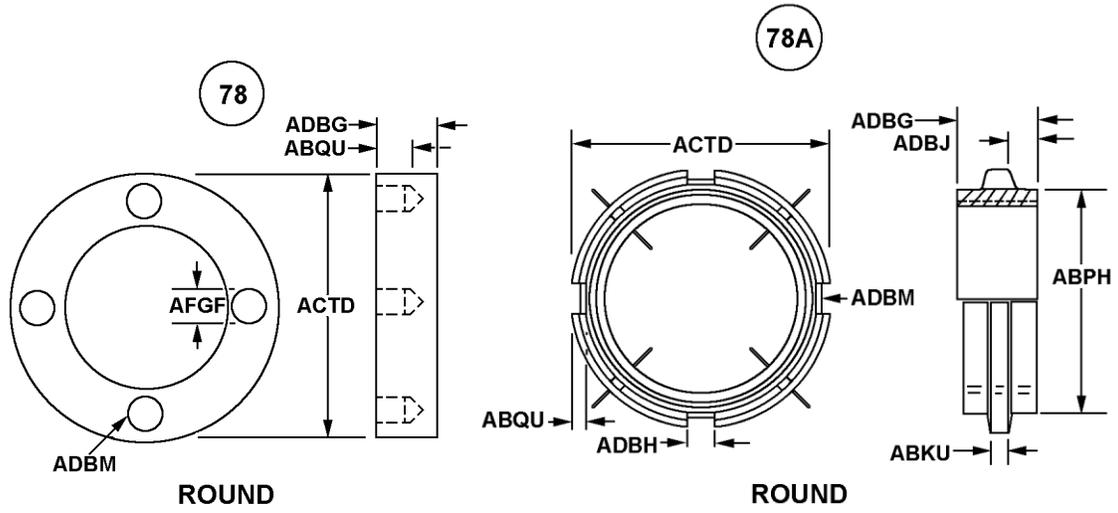
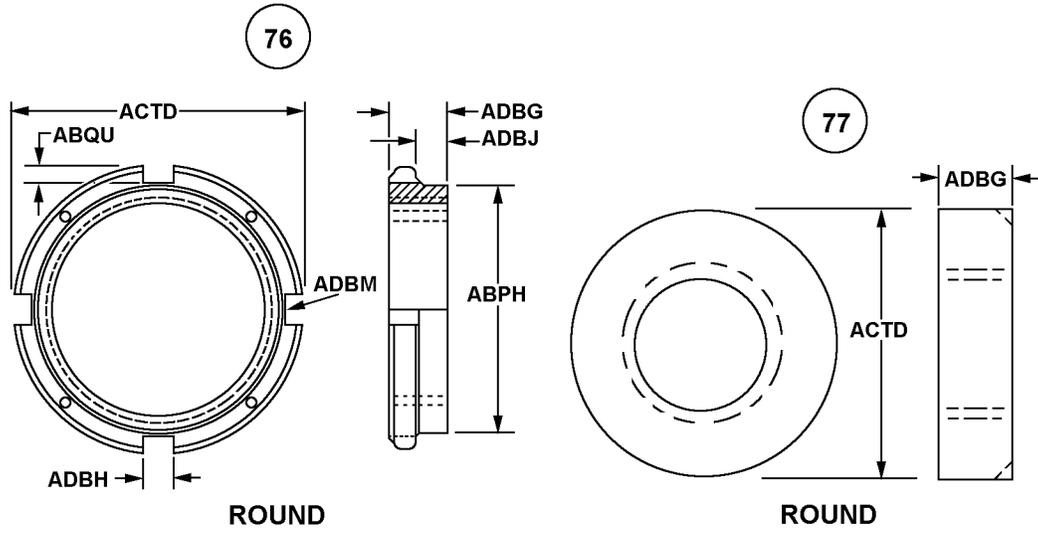












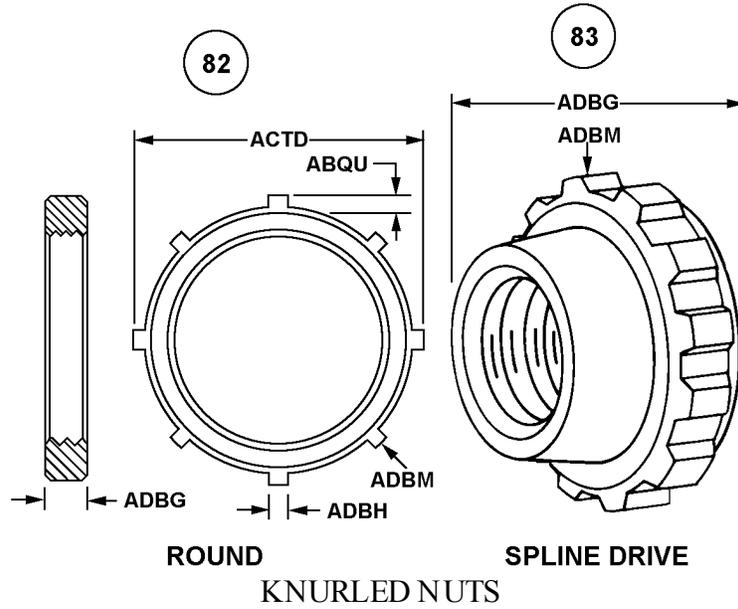
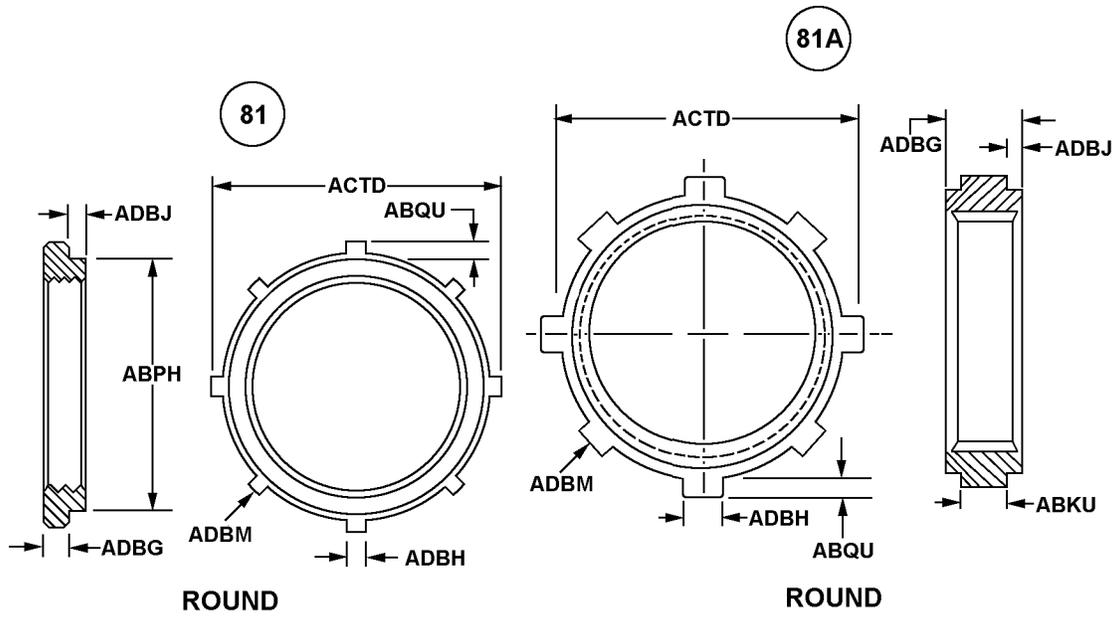
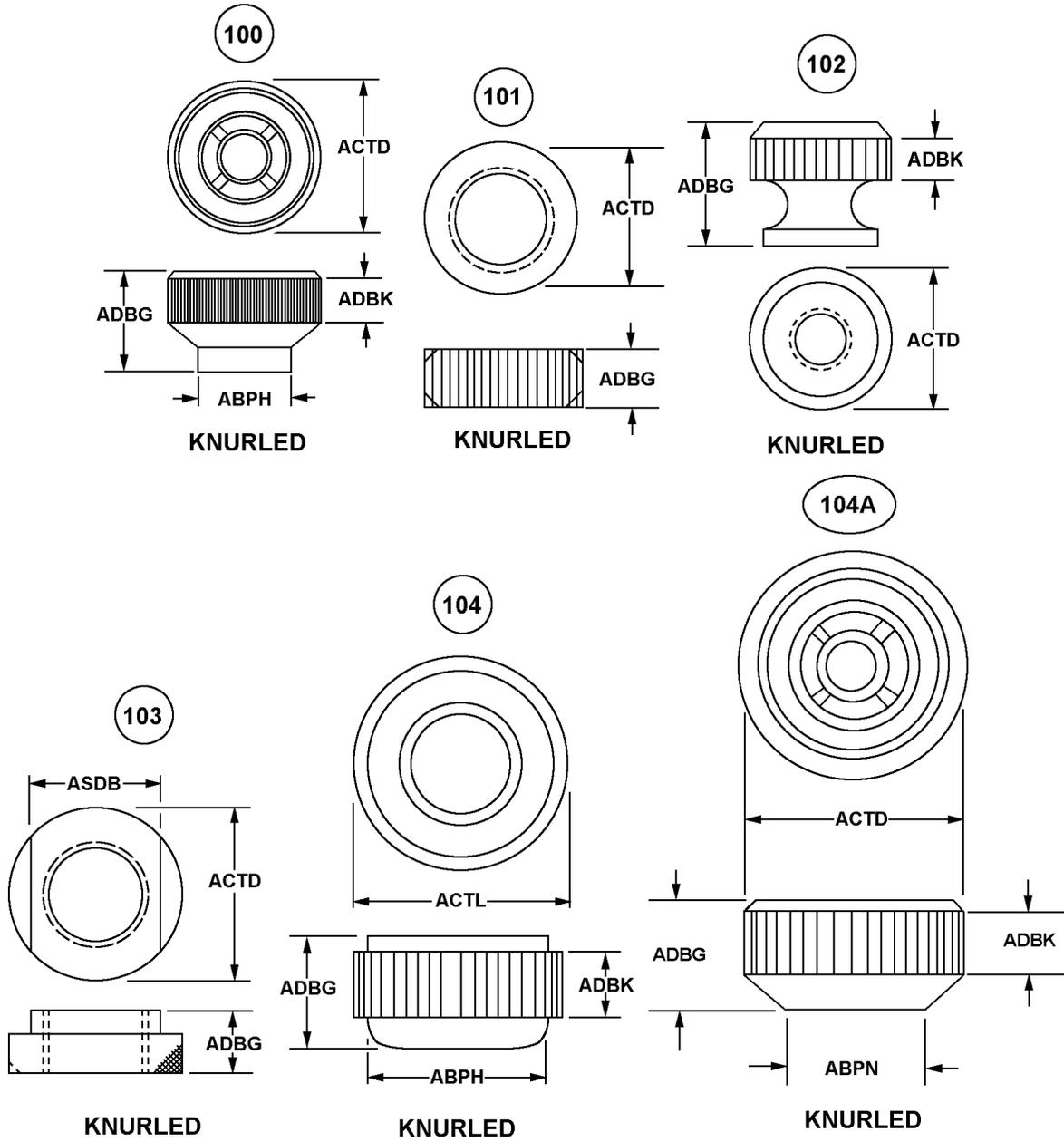
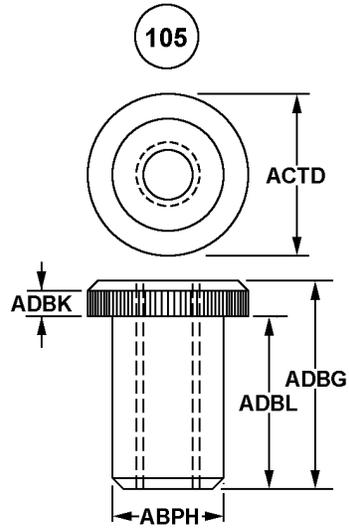


FIG A021A
APPENDIX B





**KNURLED
PLATE NUTS**

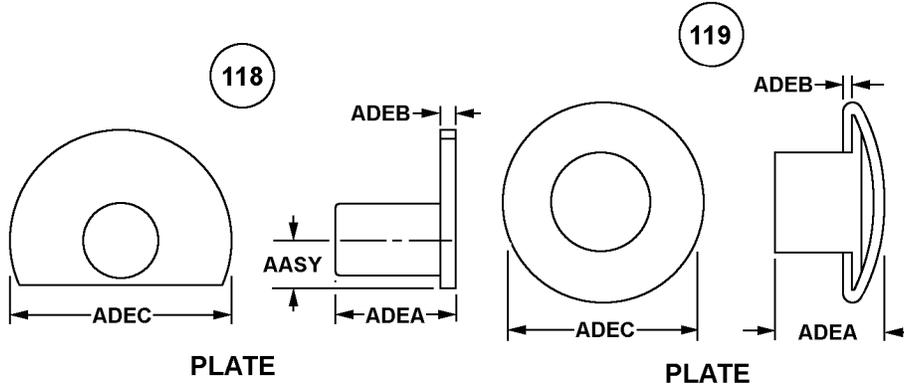
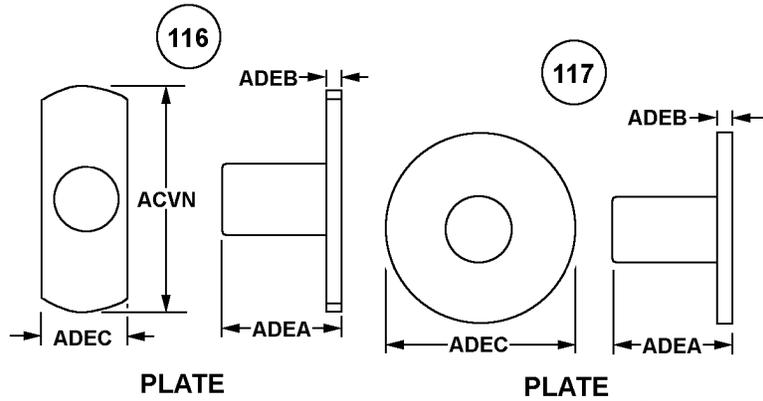
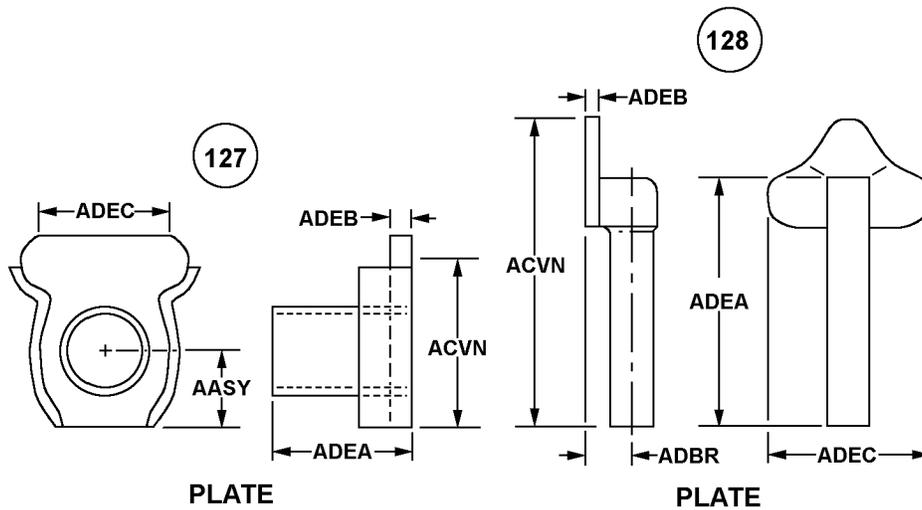
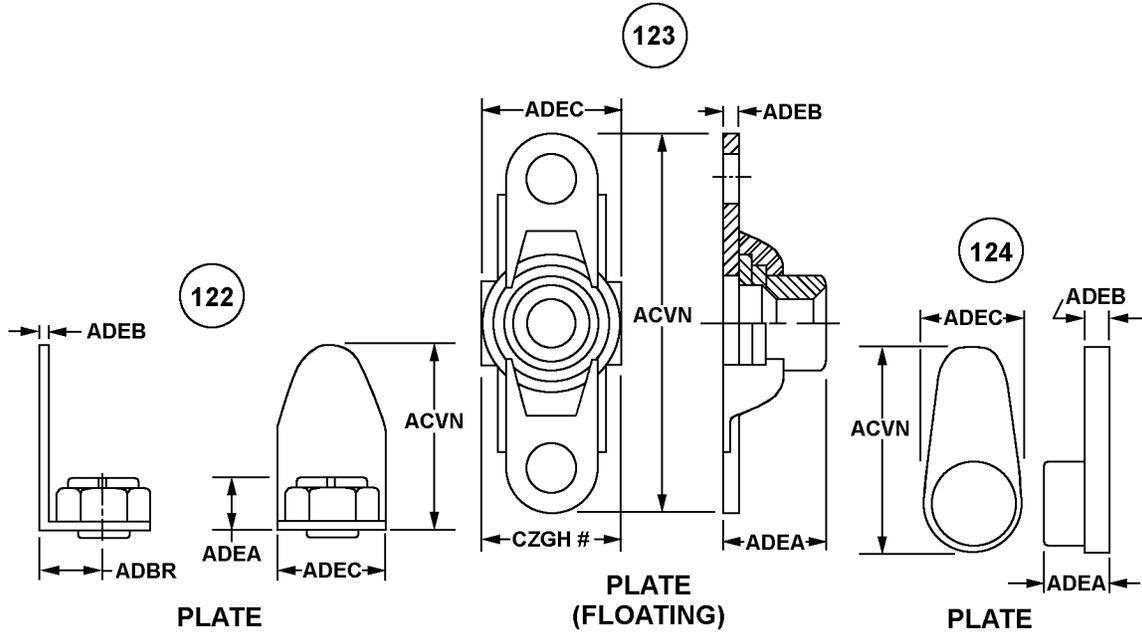
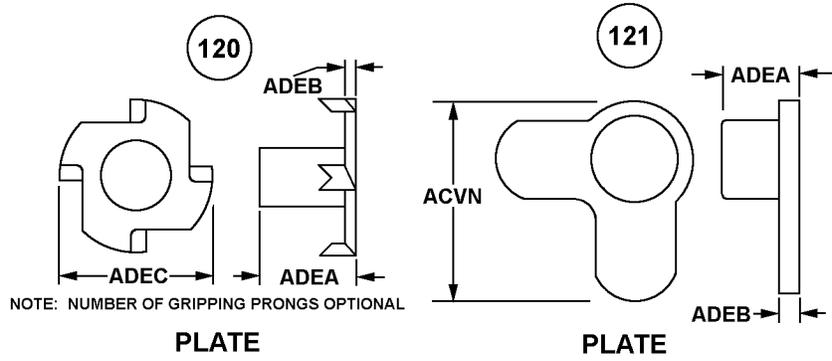


FIG A021A
APPENDIX B



129

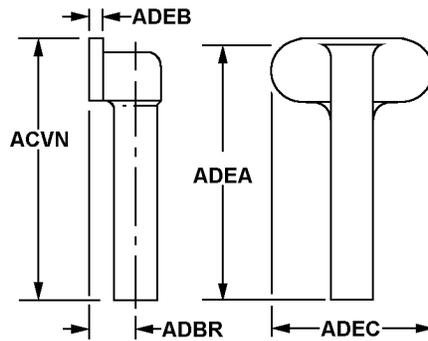


PLATE
PLATE NUT SPACER

140

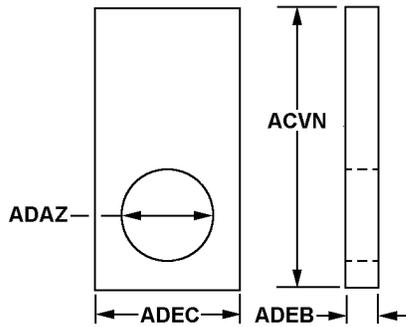


PLATE NUT SPACER

141

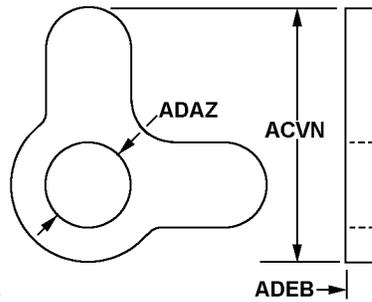


PLATE NUT SPACER

142

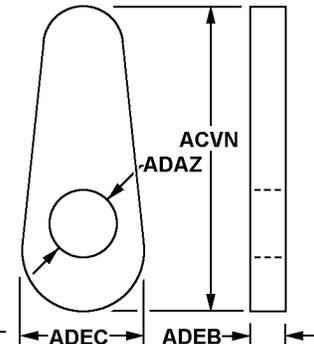


PLATE NUT SPACER

143

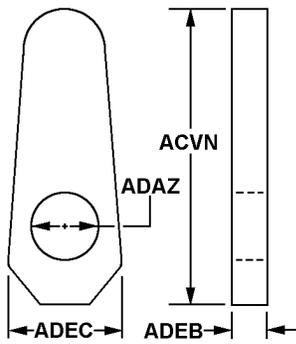


PLATE NUT SPACER

144

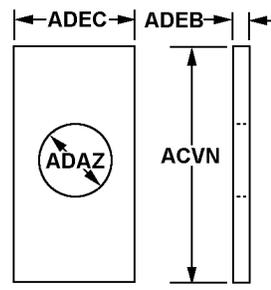


PLATE NUT SPACER

145

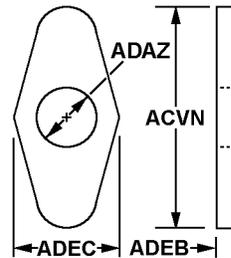


PLATE NUT SPACER

146

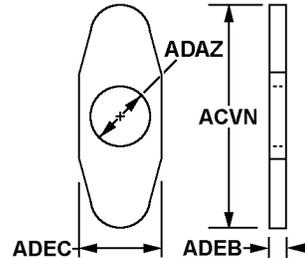
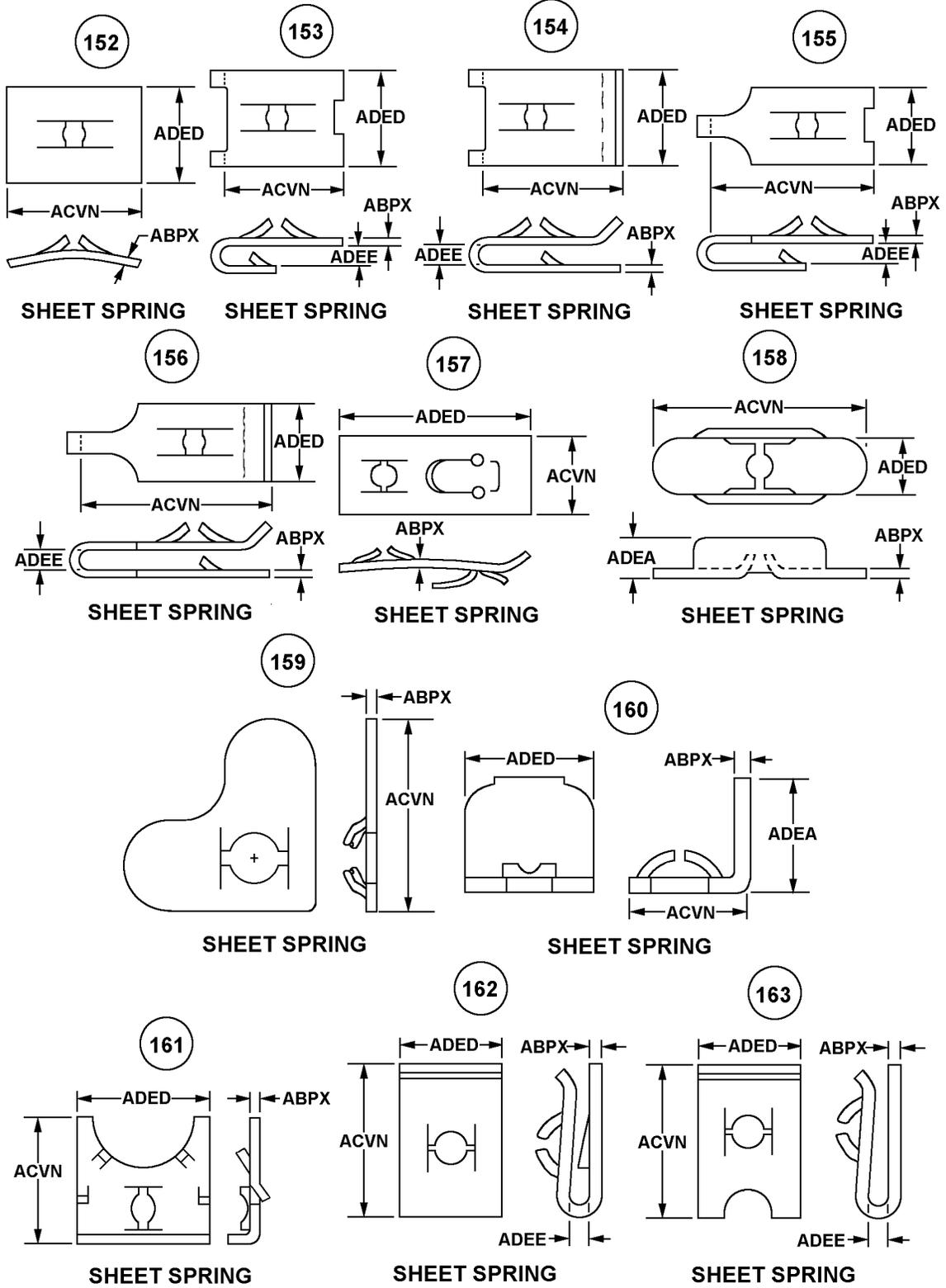
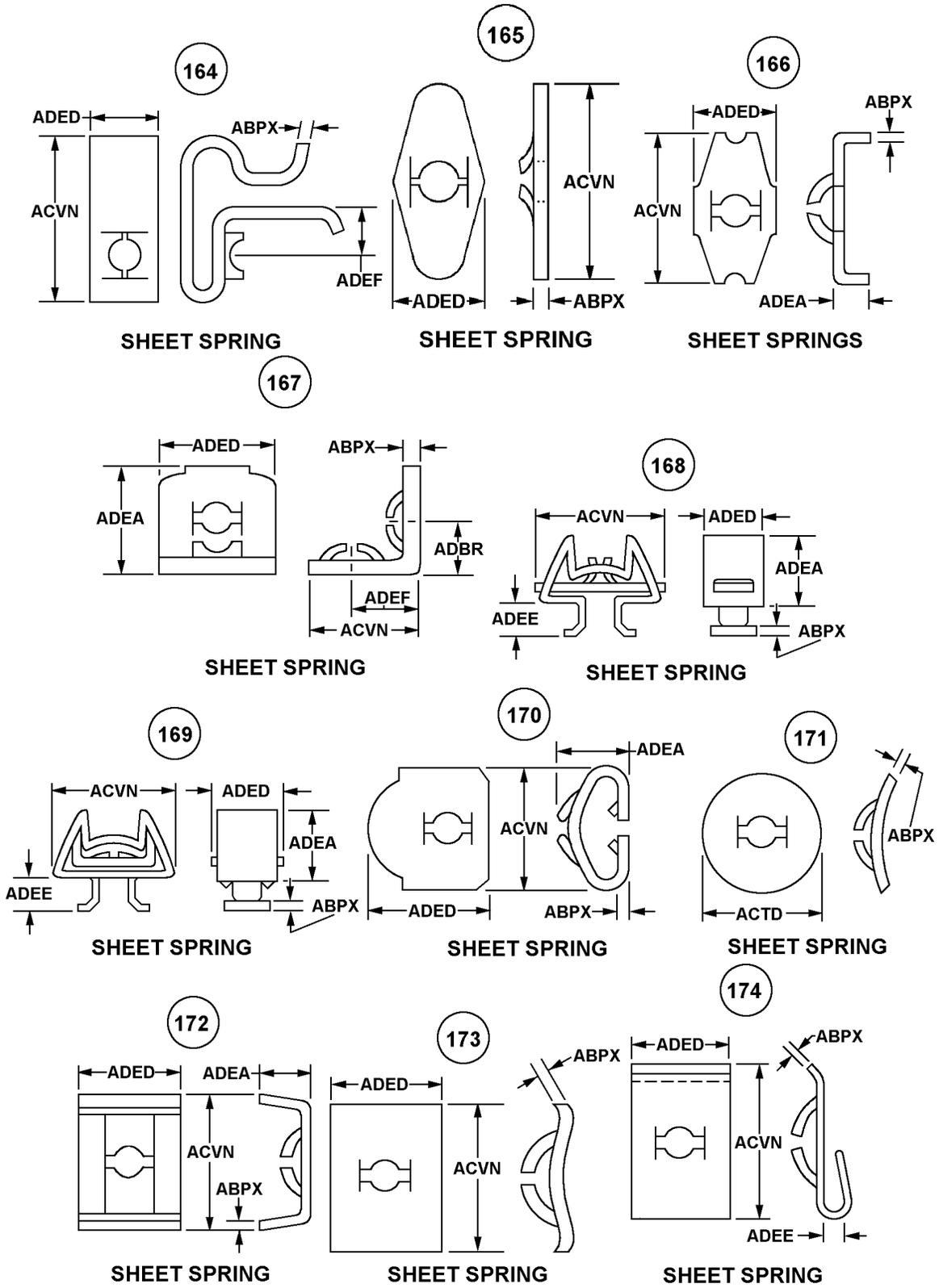
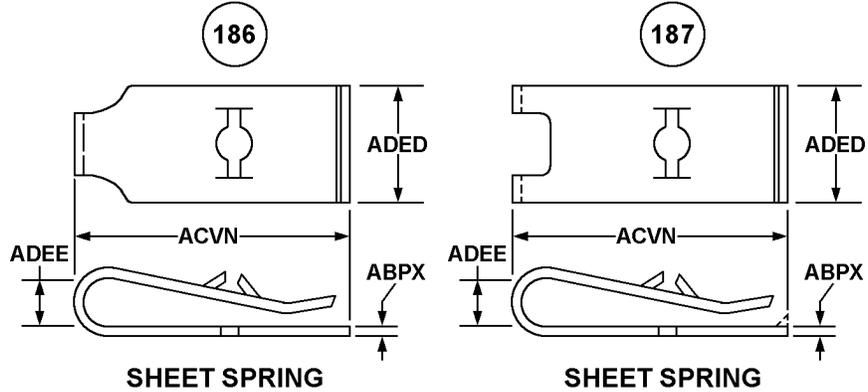
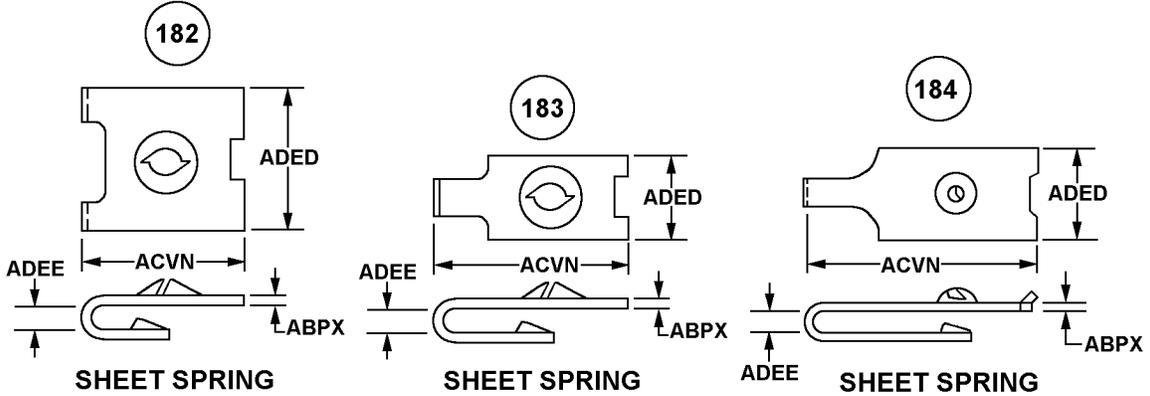
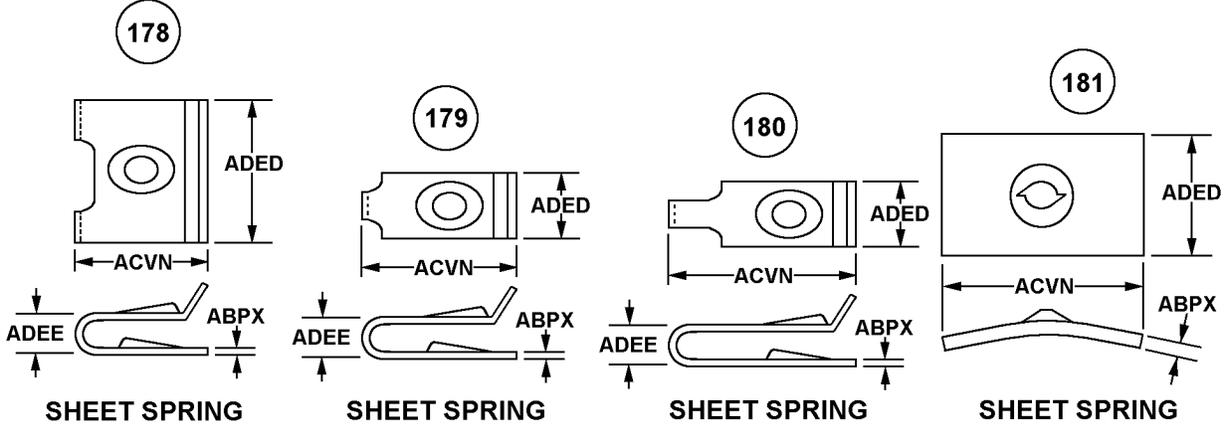
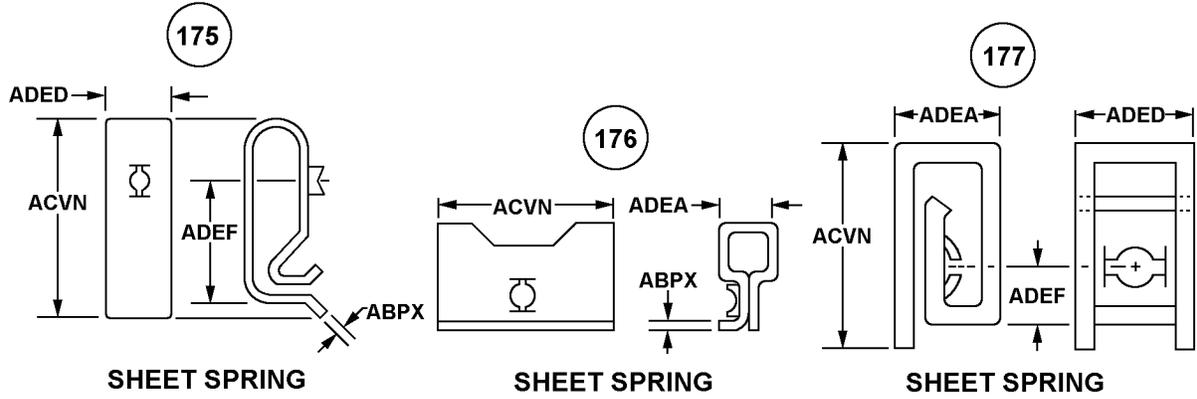


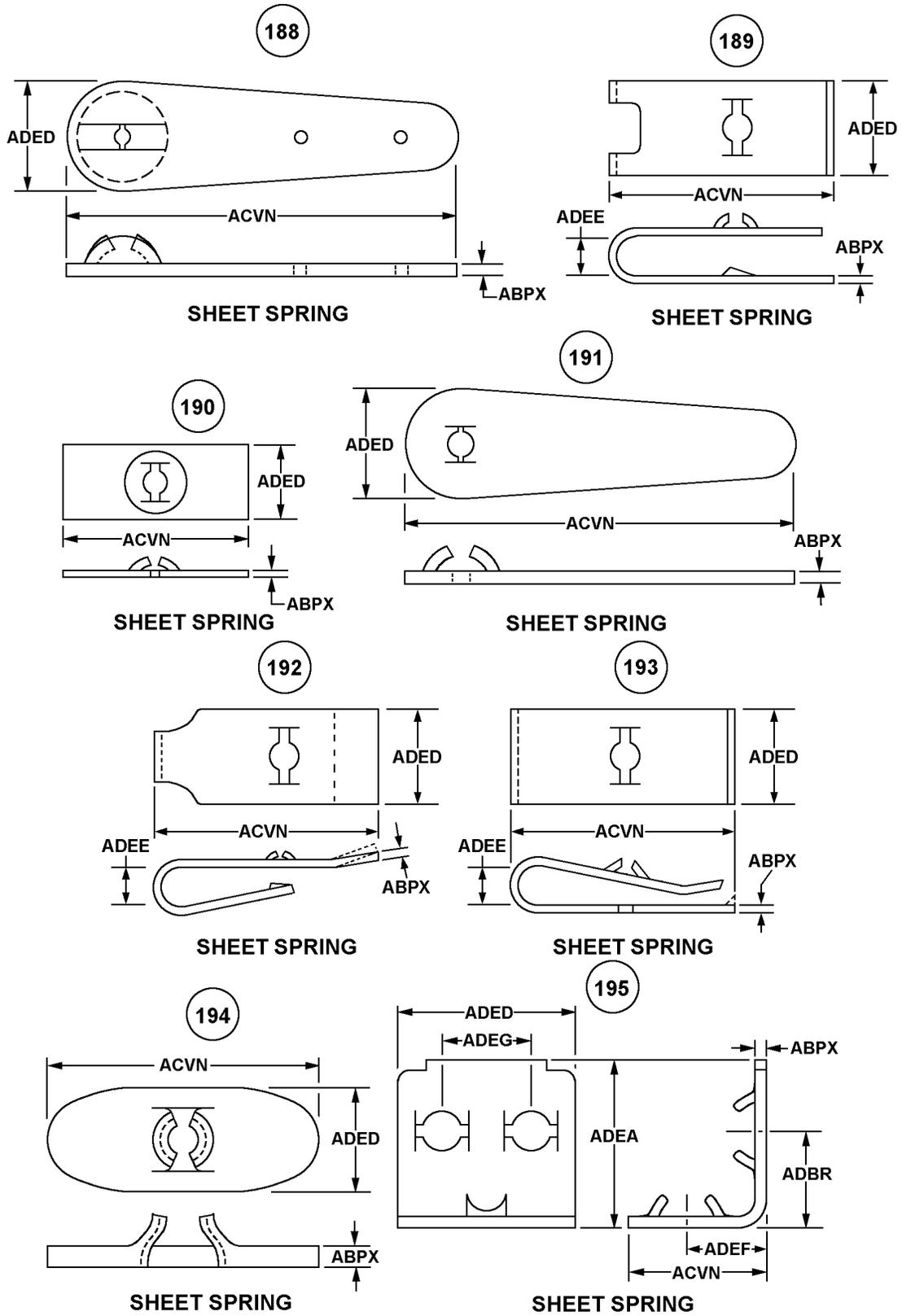
PLATE NUT SPACER

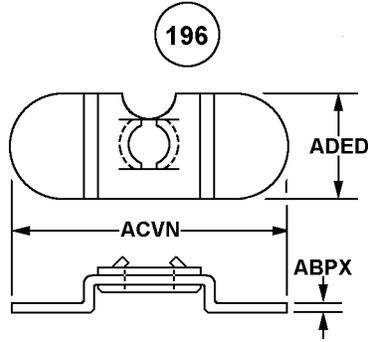
SHEET SPRING NUTS



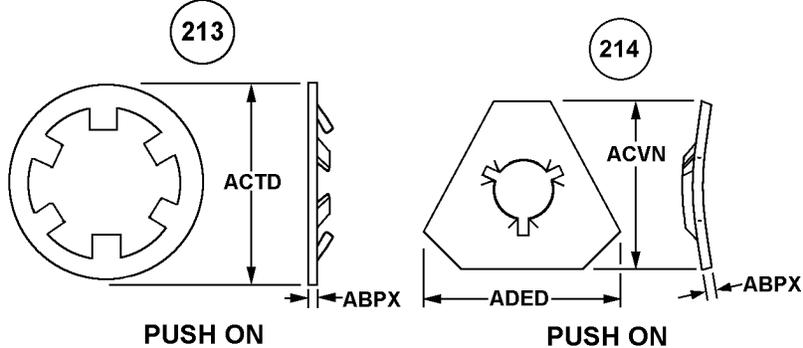
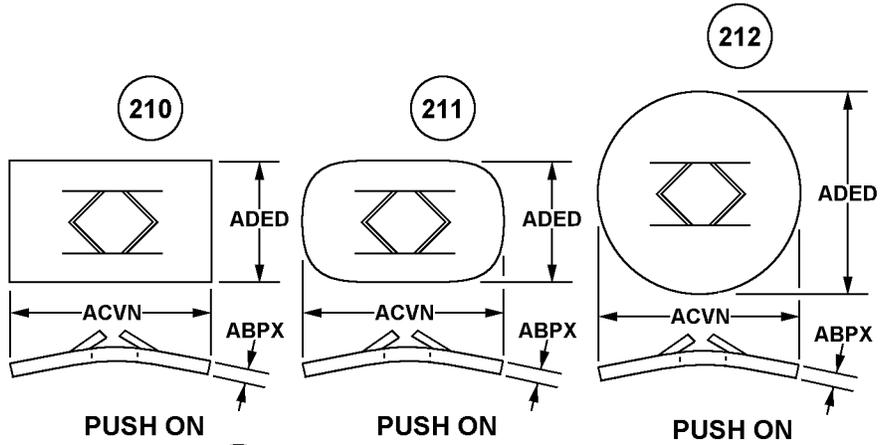




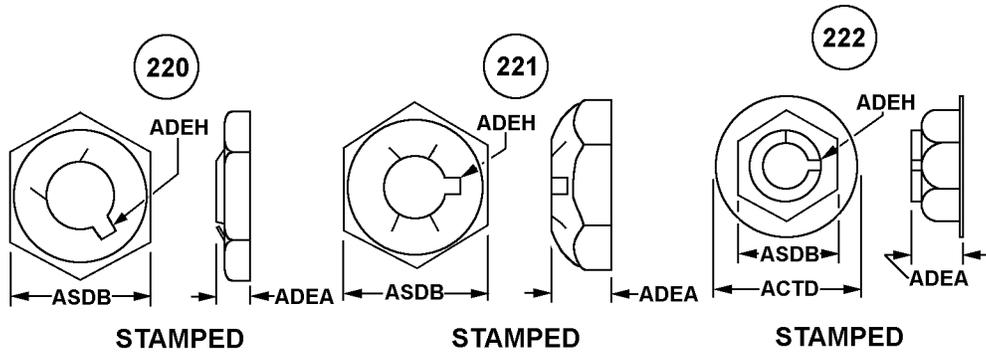




**SHEET SPRING
PUSH ON NUTS**



STAMPED NUTS



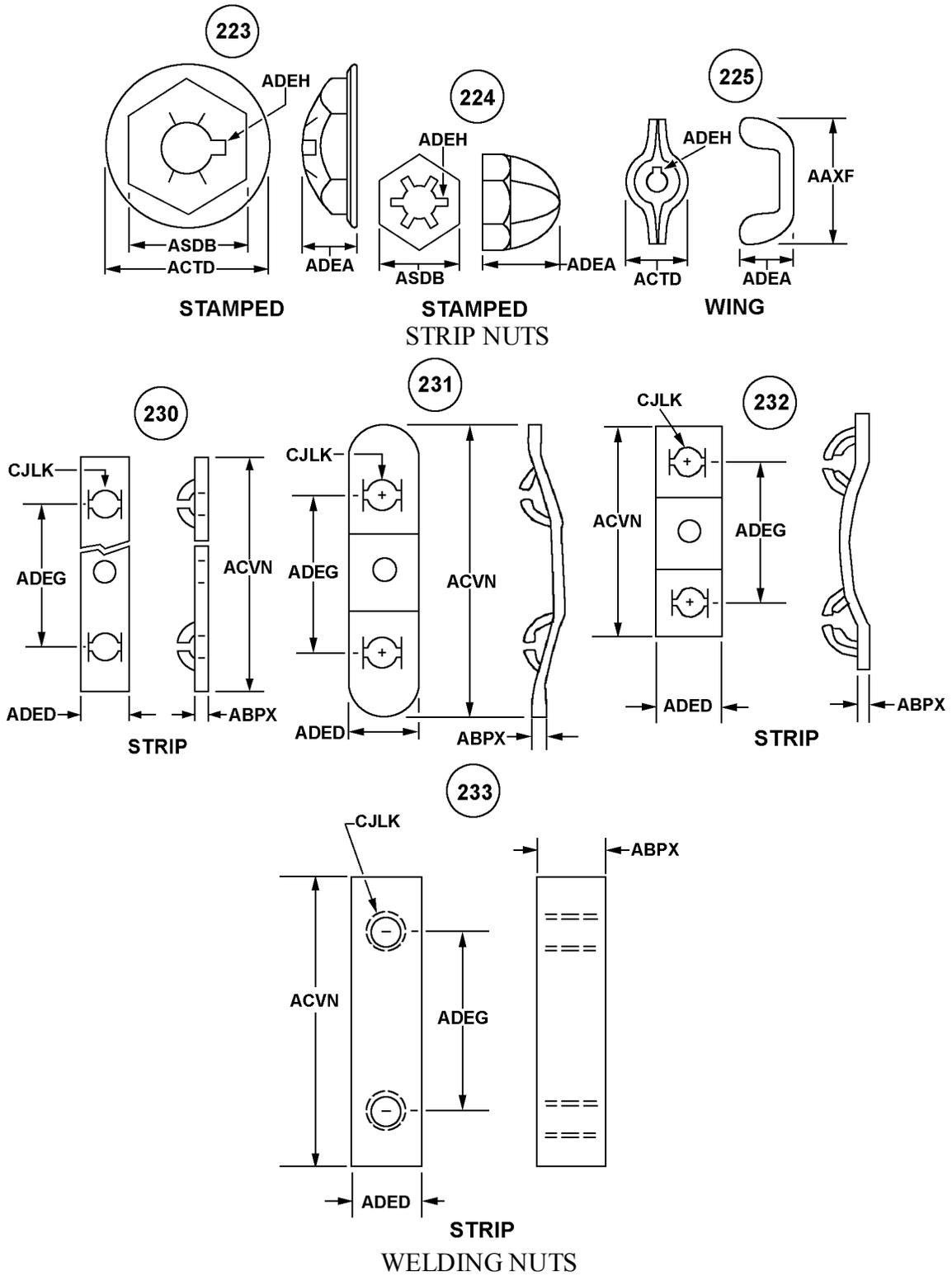
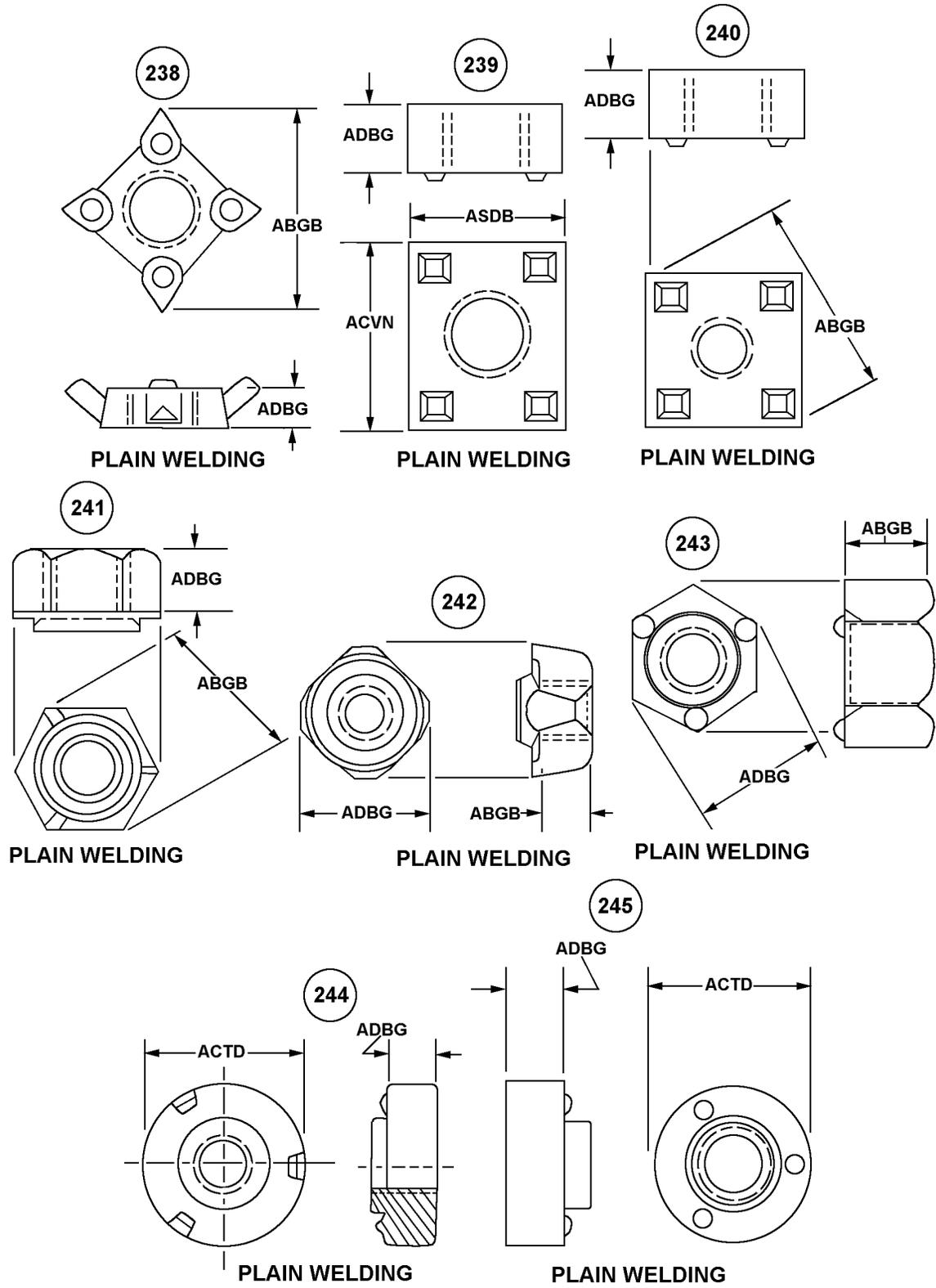
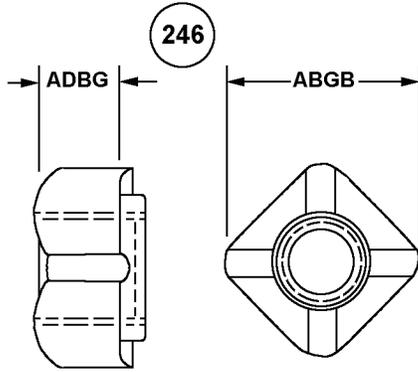
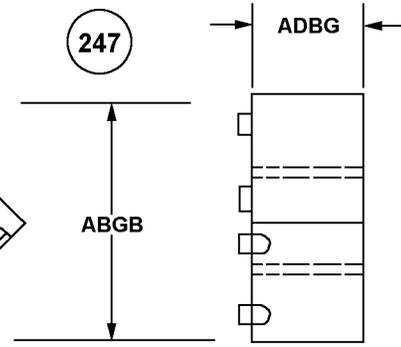


FIG A021A
APPENDIX B

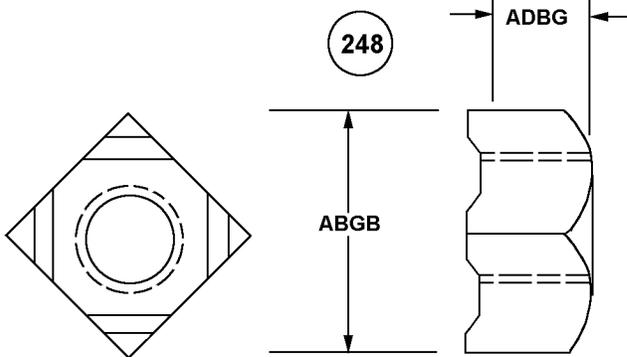




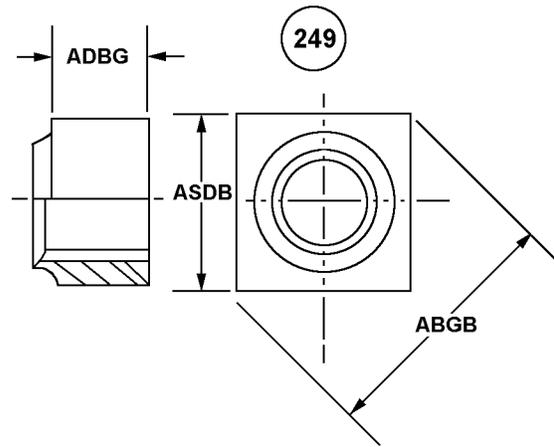
246
PLAIN WELDING



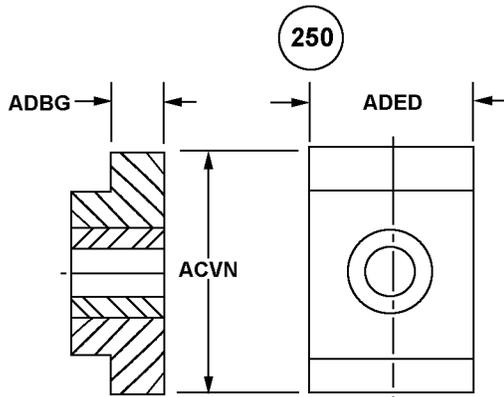
247
PLAIN WELDING



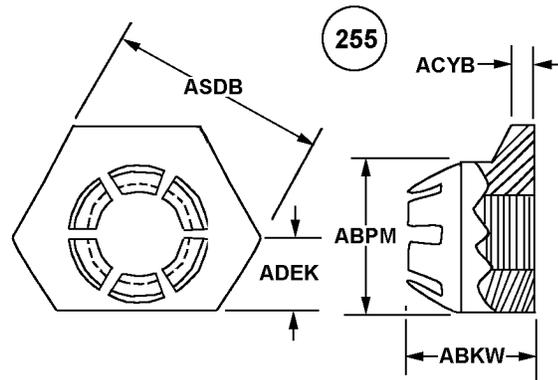
248
PLAIN WELDING



249
PLAIN WELDING



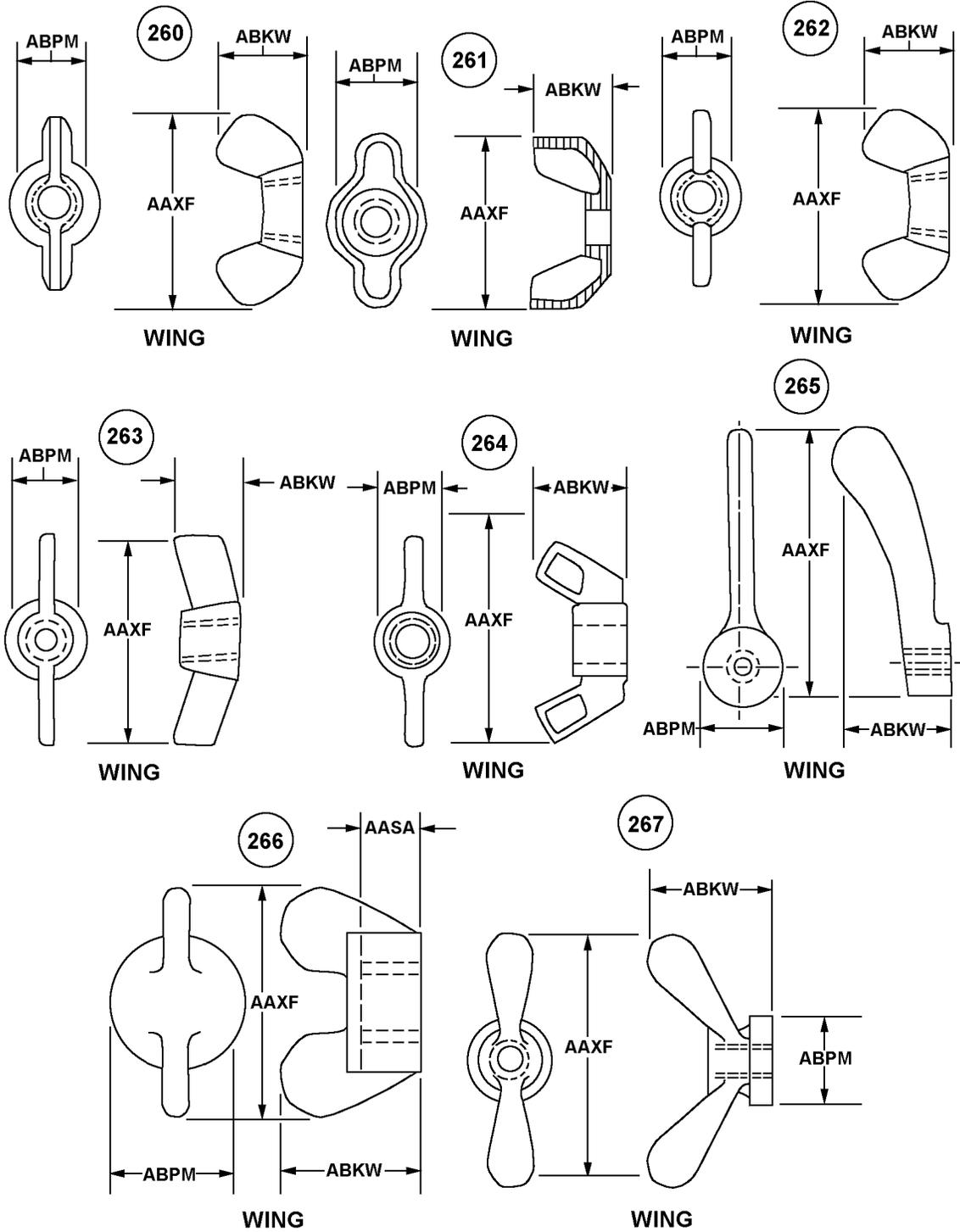
250
PLAIN WELDING



255
SELF-LOCKING WELDING

WING NUTS

FIG A021A
APPENDIX B



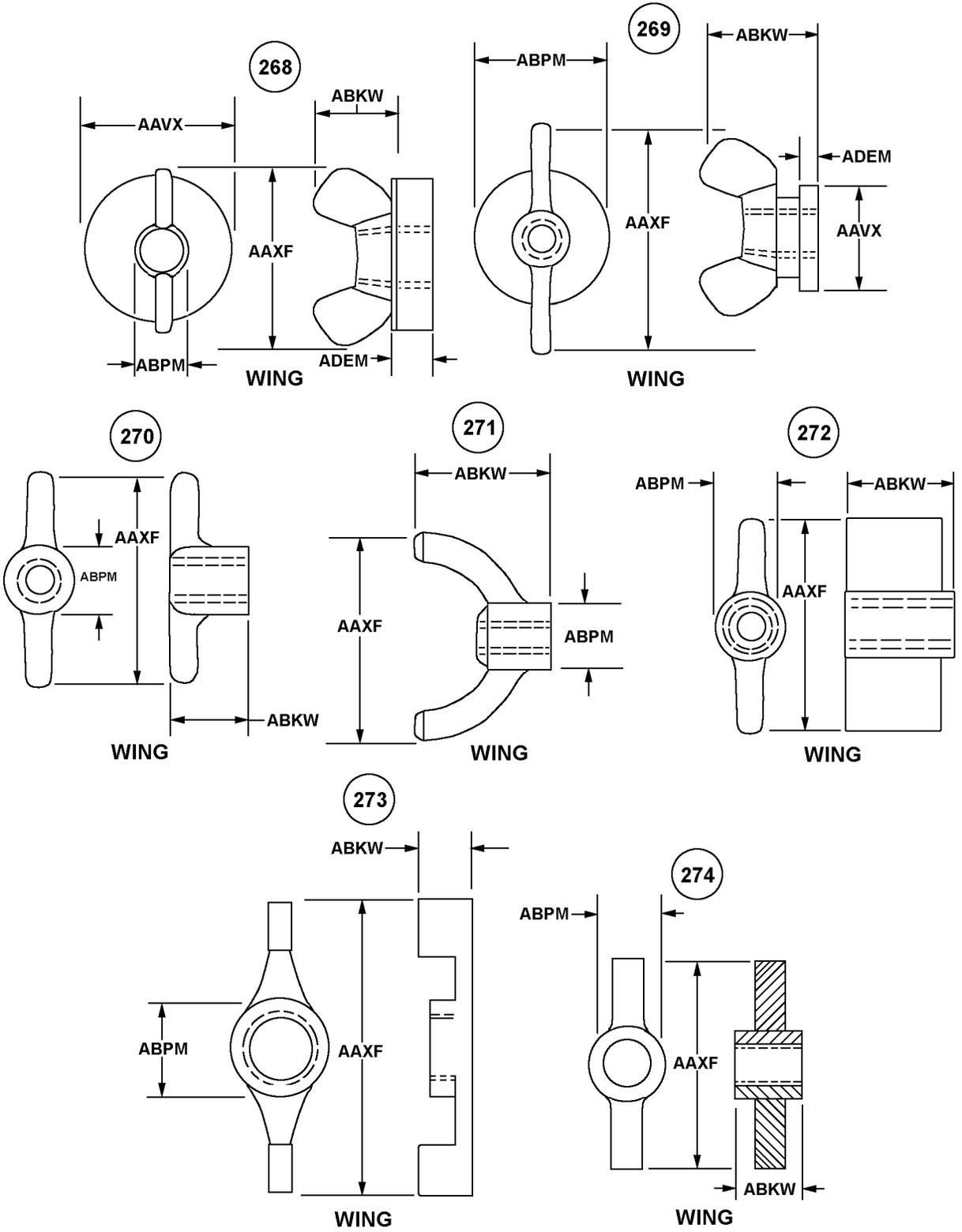
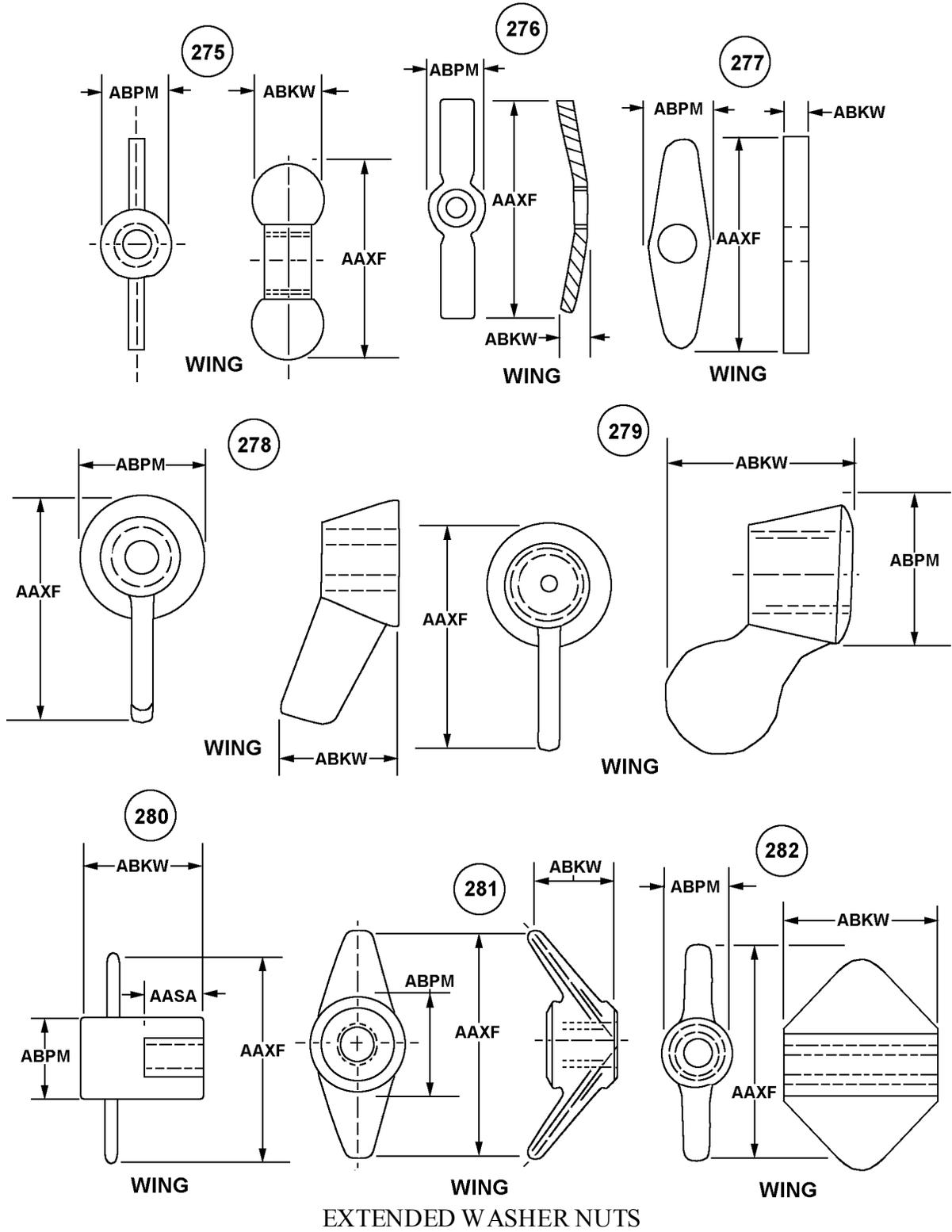
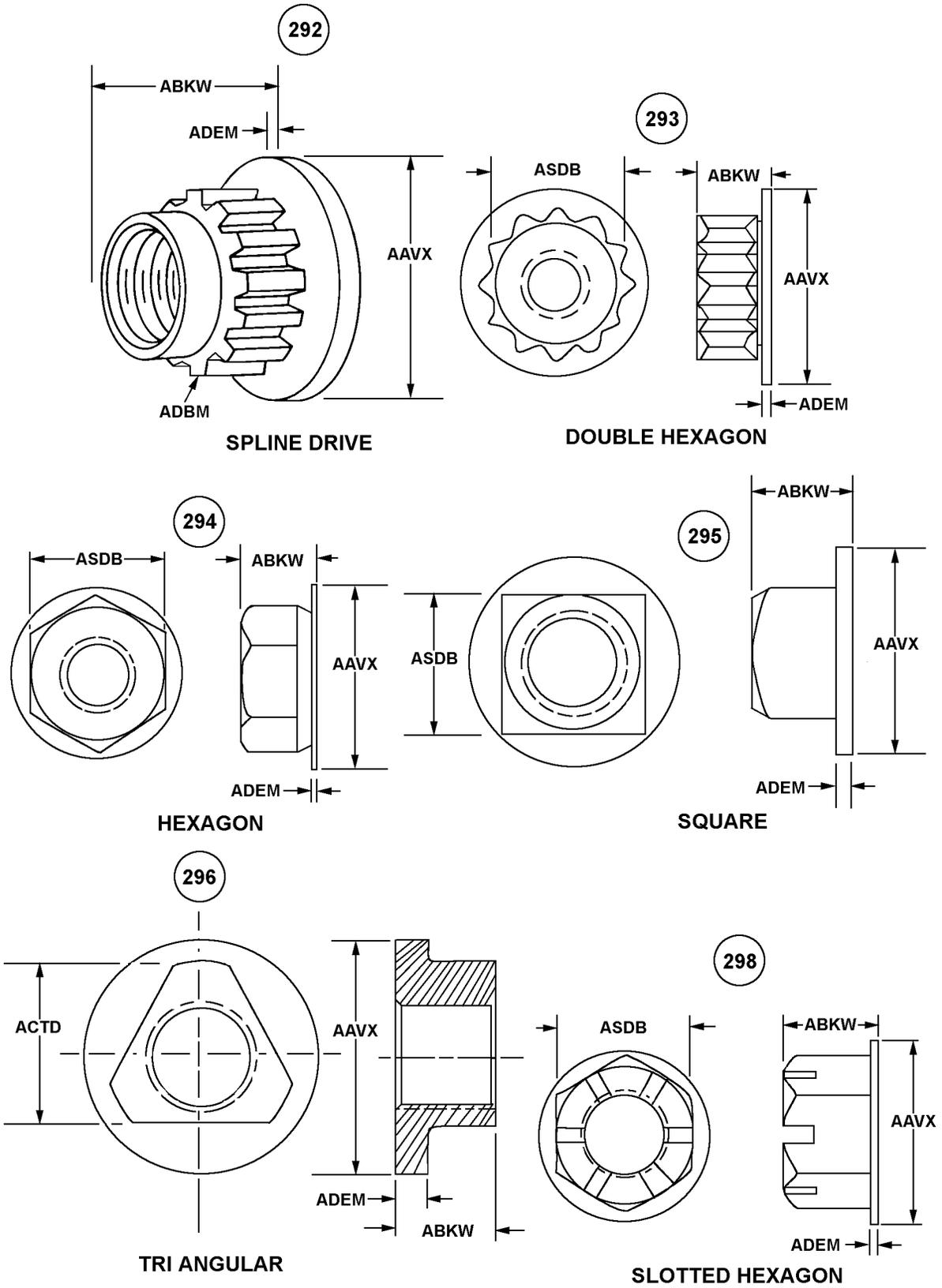
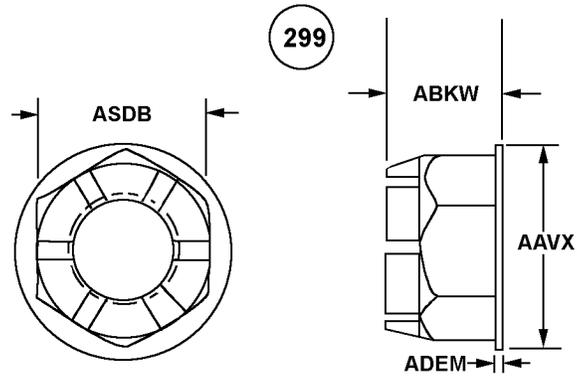


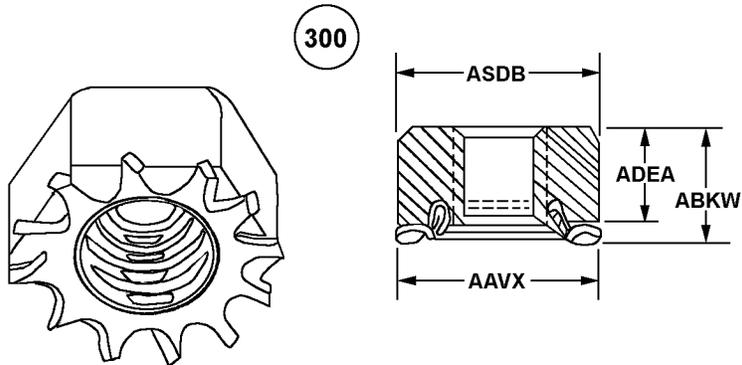
FIG A021A
APPENDIX B



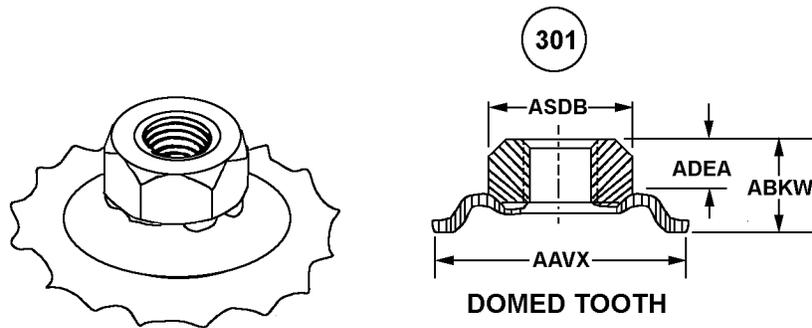




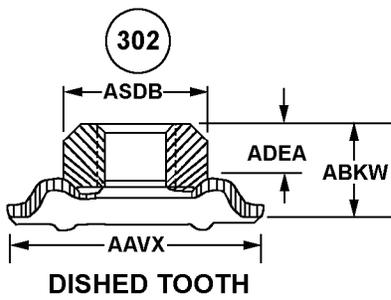
**CASTELLATED HEXAGON
ASSEMBLED WASHER NUT**



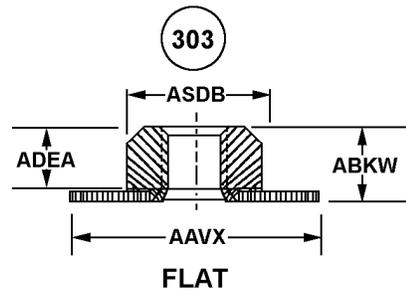
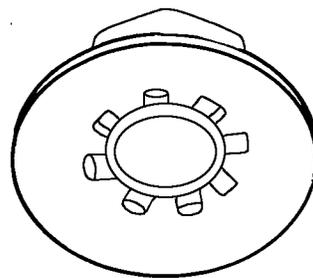
EXTERNAL TOOTH



DOMED TOOTH



DISHED TOOTH



FLAT

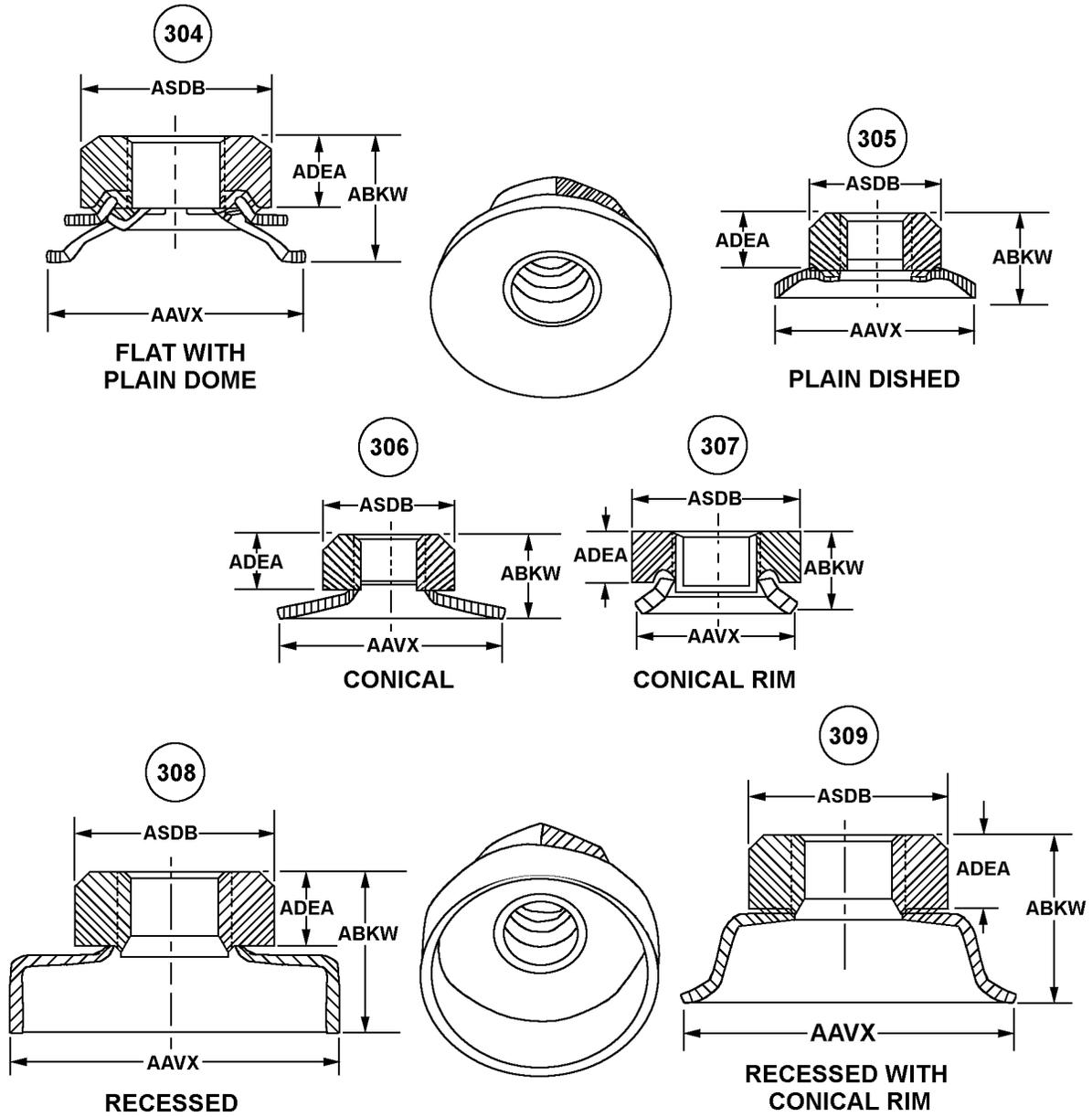


FIG A021A
APPENDIX B

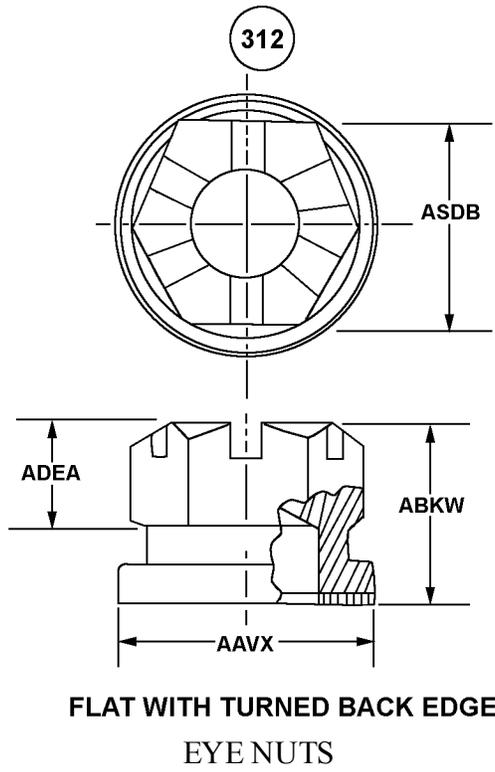
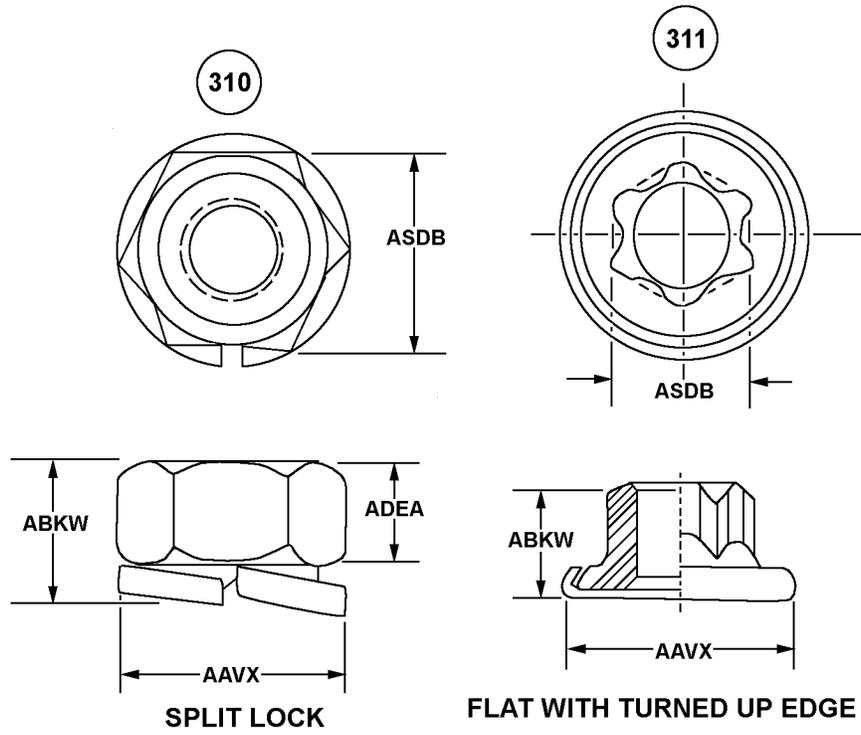


FIG A021A
APPENDIX B

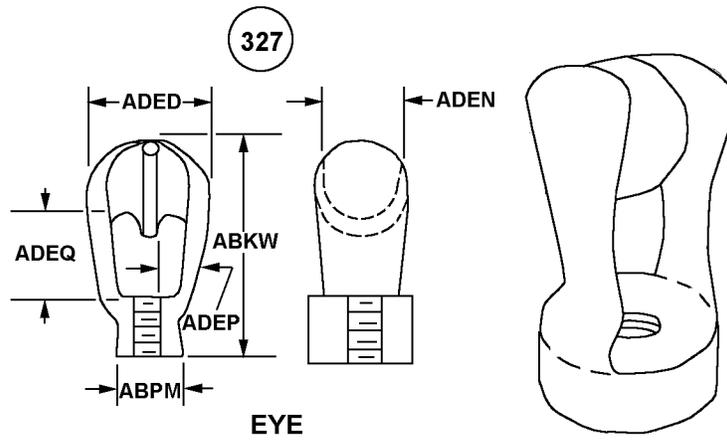
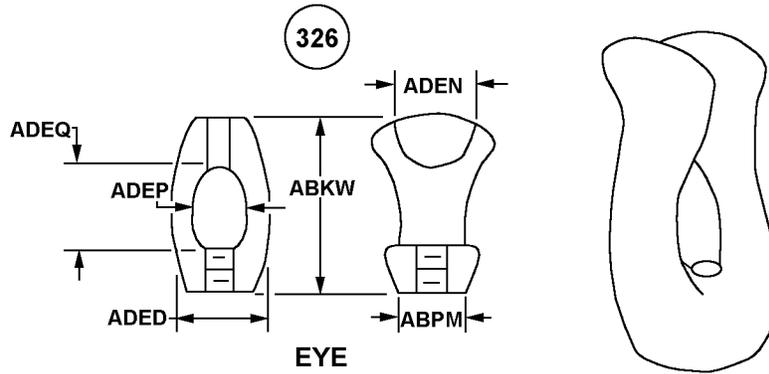
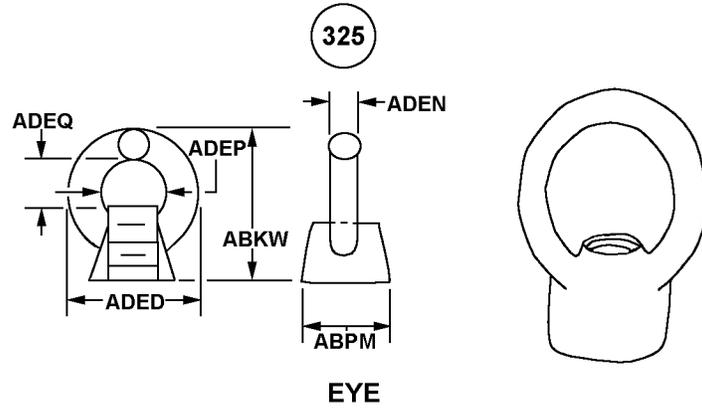
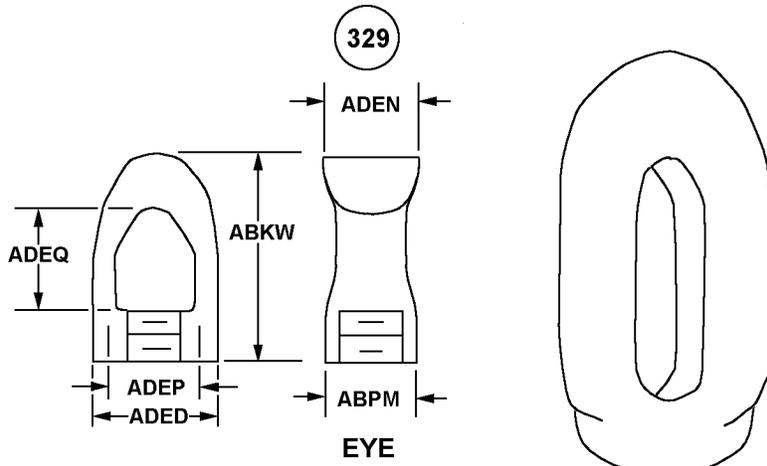
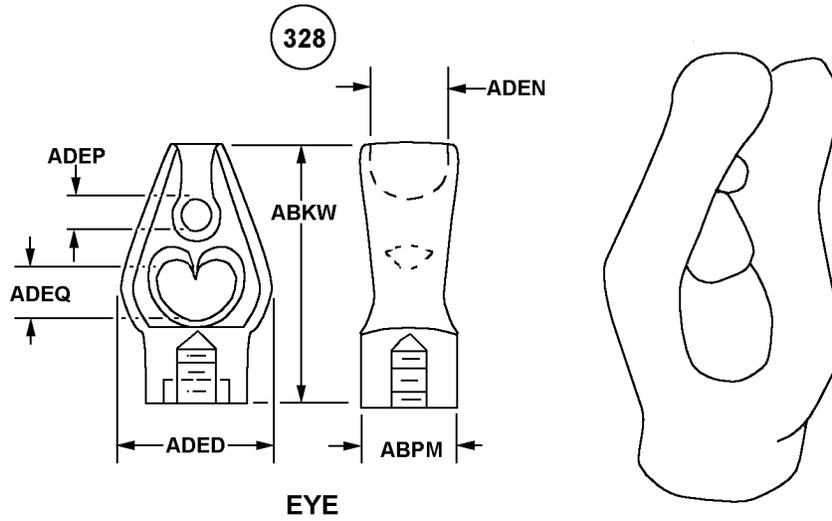
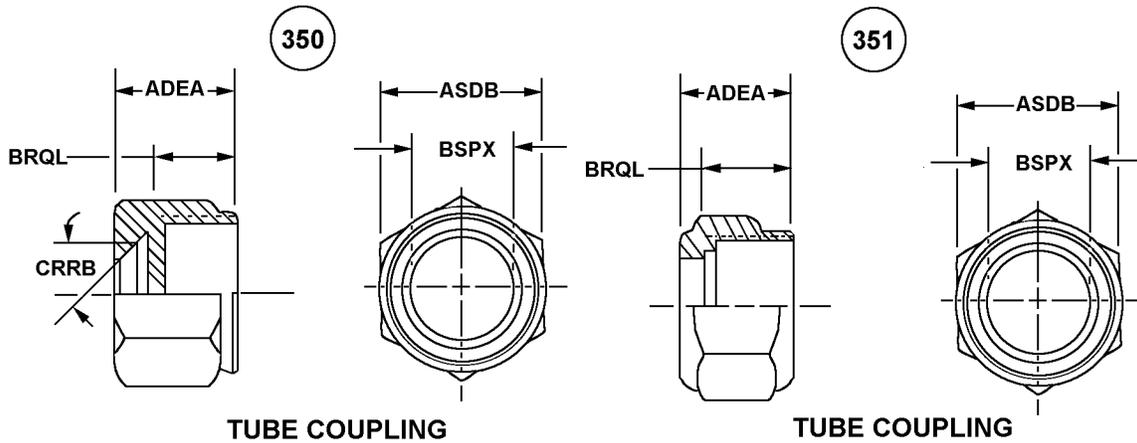


FIG A021A
APPENDIX B



COUPLING NUTS; ELECTRICAL CONNECTOR COUPLING



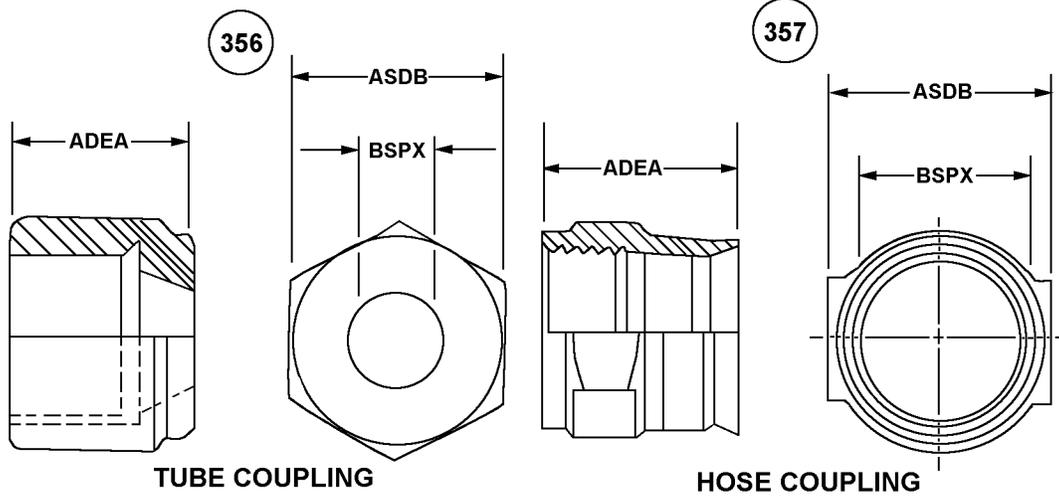
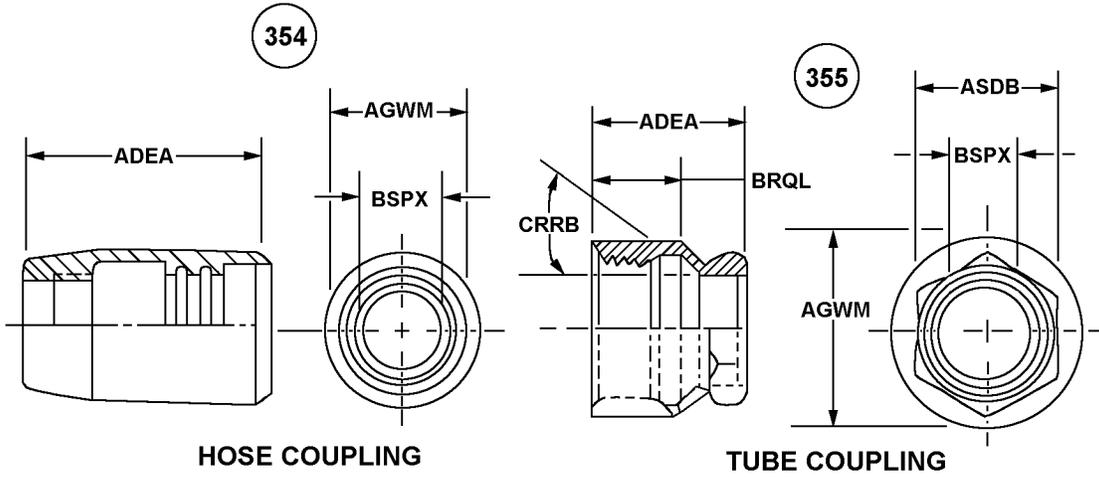
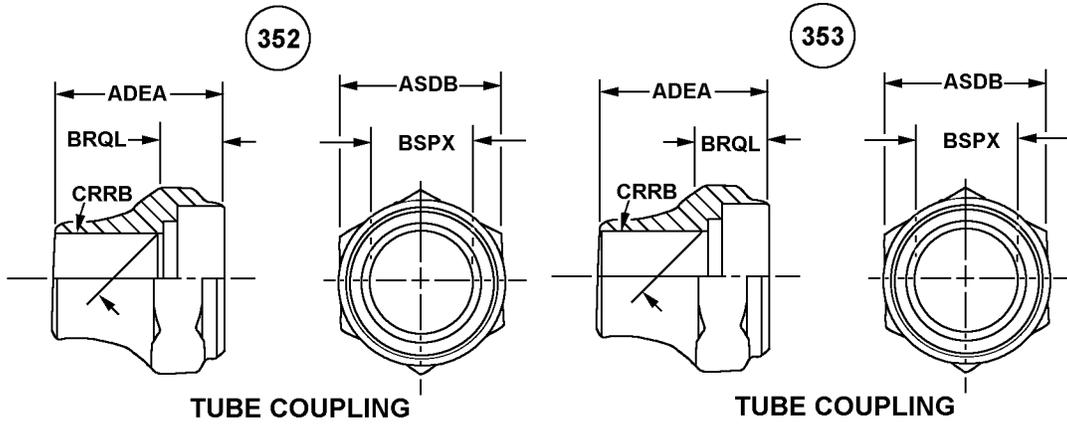
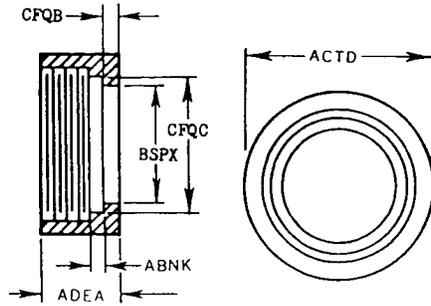


FIG A021A
APPENDIX B

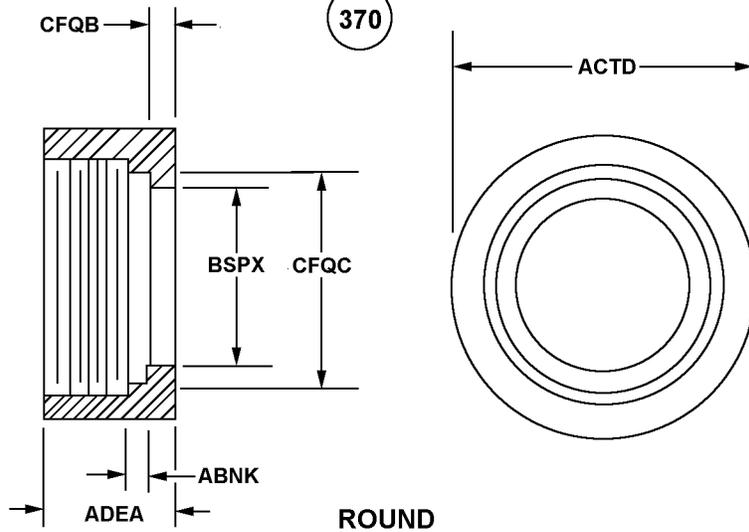
358



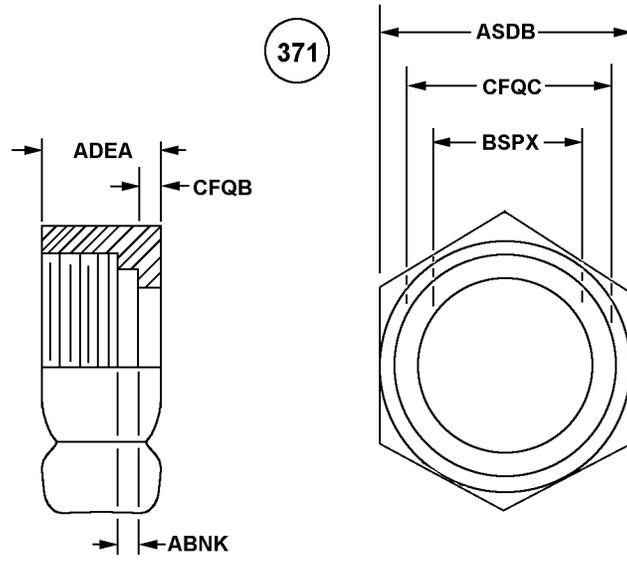
ROUND

UNION NUTS; ELECTRICAL CONNECTOR COUPLING

370

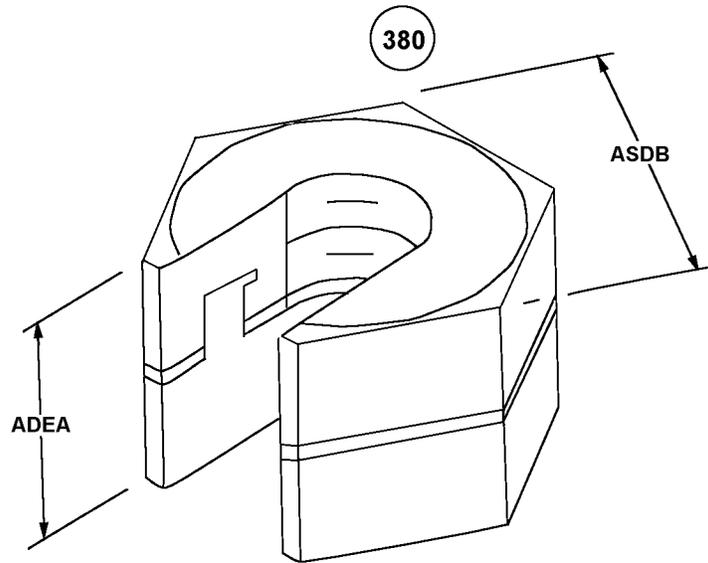


ROUND

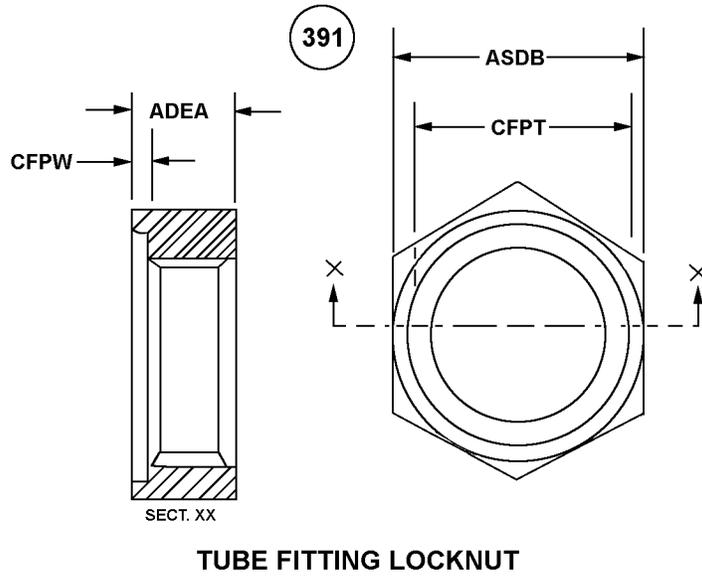
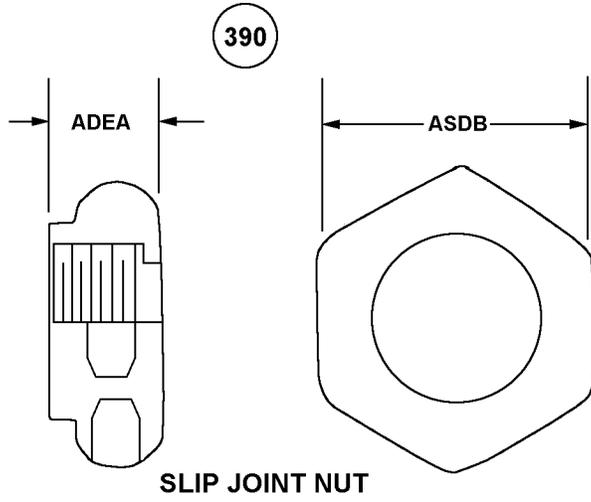


HEXAGON

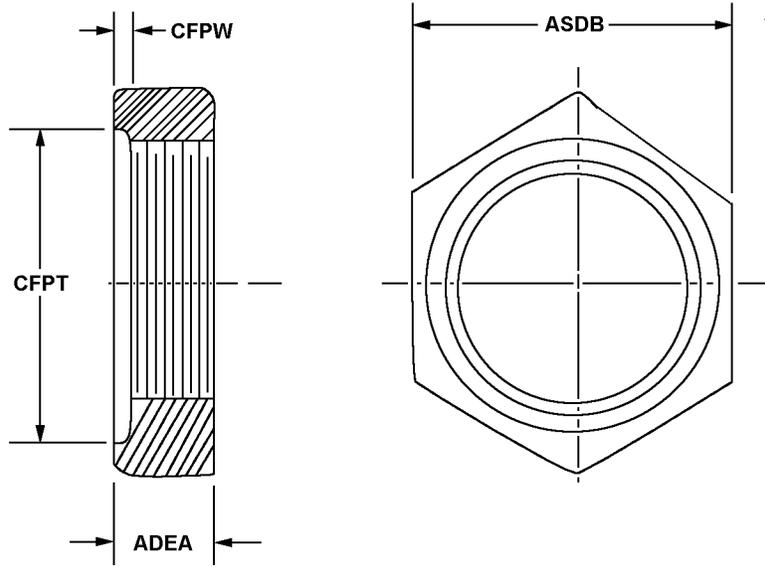
SLIP JOINT, LOCKNUTS AND SEAL NUTS



SLIP ON

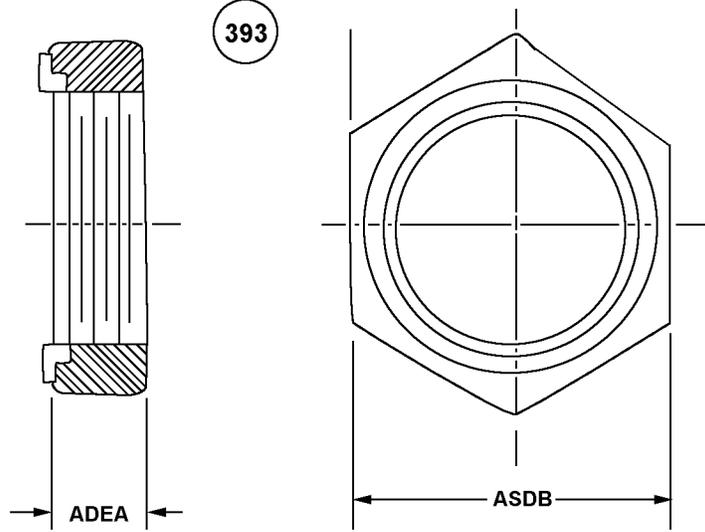


392



PIPE LOCKNUT

393



PIPE SEAL NUT
CLIP NUTS

FIG A021A
APPENDIX B

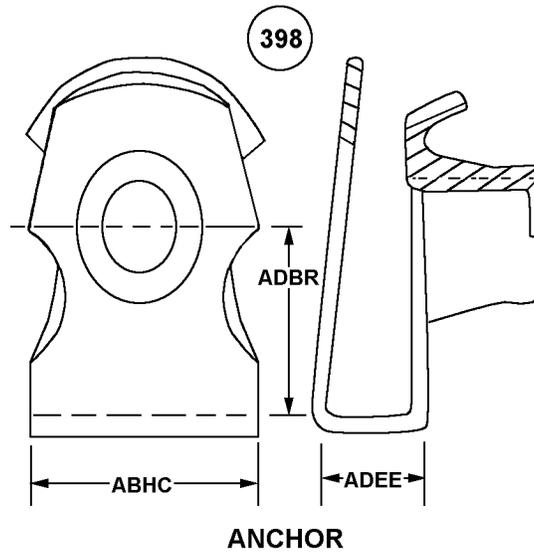
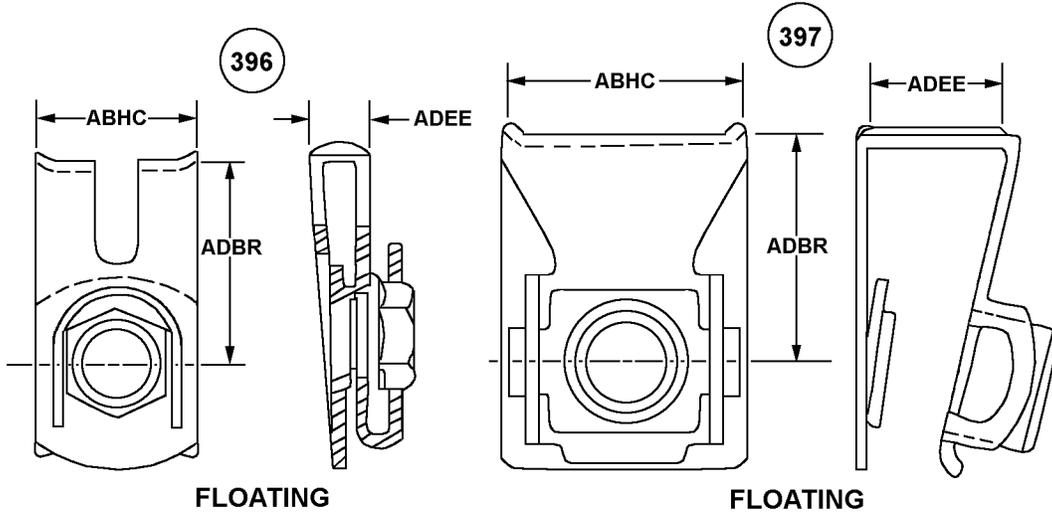
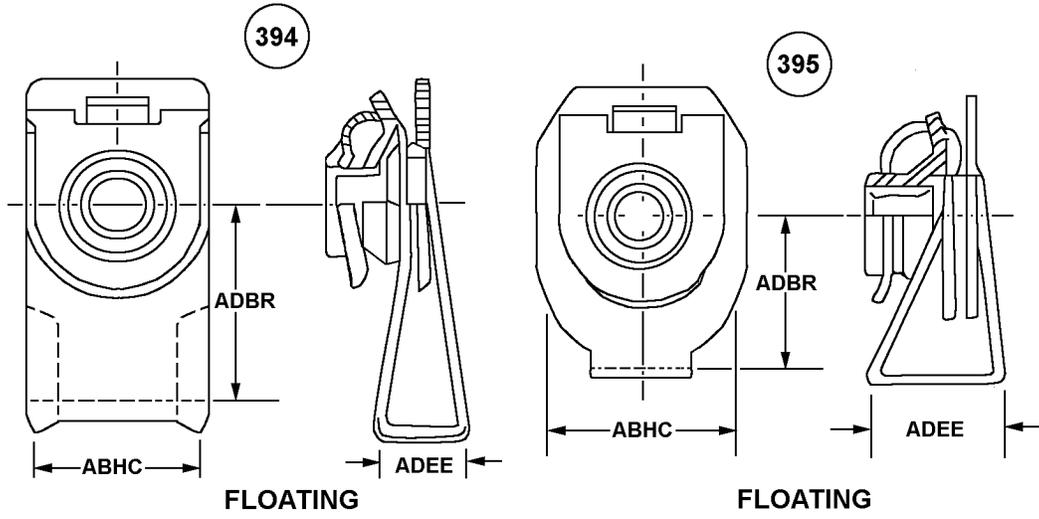
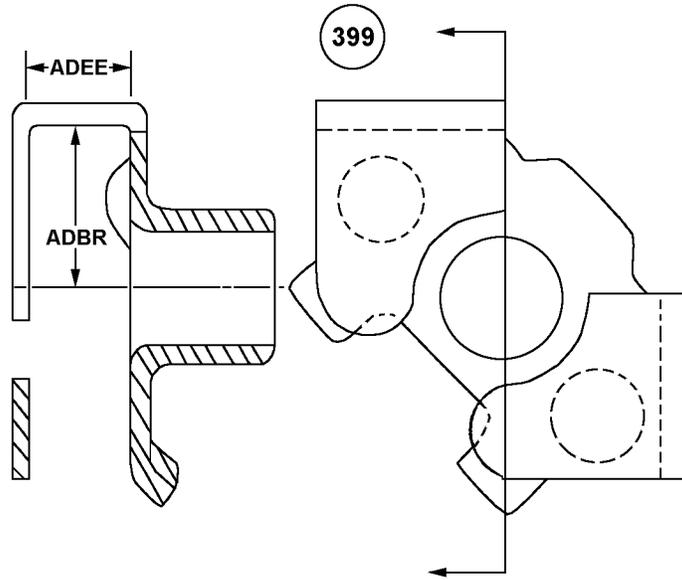
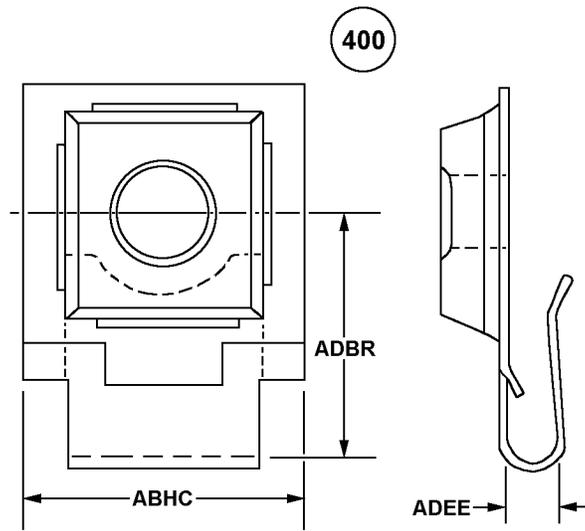


FIG A021A
APPENDIX B

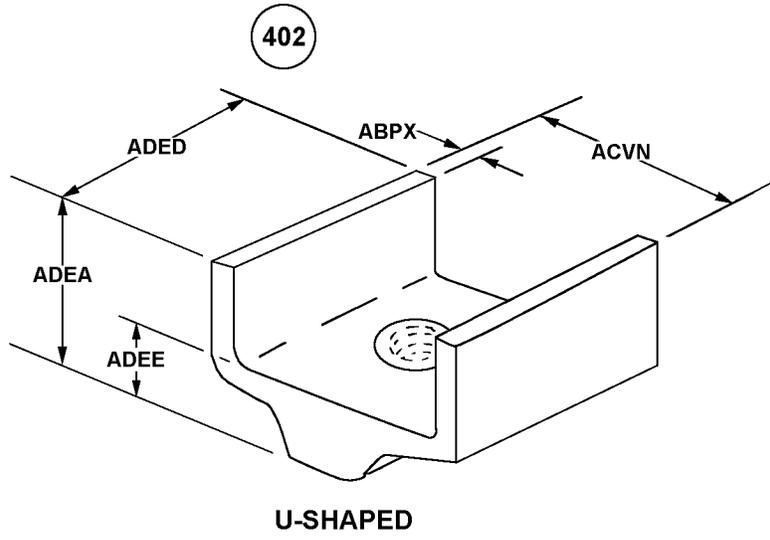
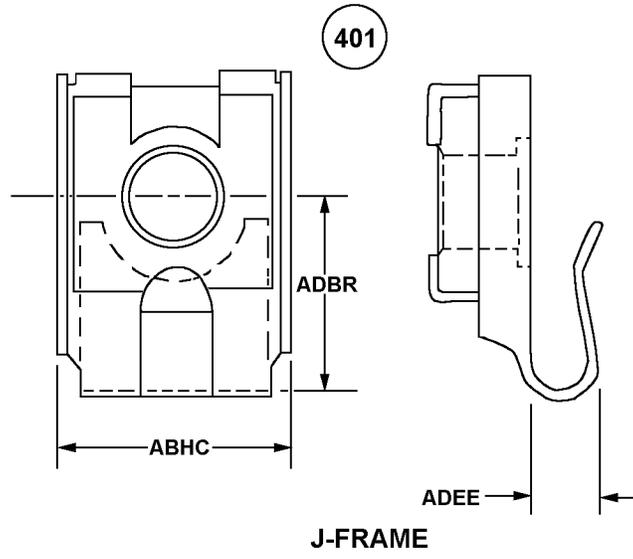


CYLINDRICAL ANCHOR



J-FRAME

FIG A021A
APPENDIX B



REFERENCE DRAWING GROUP B Tables
MOUNTING DIMENSIONS - ASSEMBLY NUTS

INDEX OF MASTER REQUIREMENT CODES

Enter the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value.
(e.g., ADEVJAA3.250*; ADEVJLA82.5*; ADEVJAB3.250\$\$JAC3.500*)

| | |
|-------------------|---------------------|
| <u>REPLY CODE</u> | <u>REPLY (AA05)</u> |
| A | INCHES |
| L | MILLIMETERS |

| | |
|-------------------|---------------------|
| <u>REPLY CODE</u> | <u>REPLY (AC20)</u> |
| A | NOMINAL |
| B | MINIMUM |
| C | MAXIMUM |

| <u>MRC</u> | <u>Mode Code</u> | <u>Name of Dimension</u> |
|------------|------------------|---|
| AARX | J | INSIDE DIAMETER |
| ABGL | J | WIDTH |
| ABKG | J | BOLT CIRCLE DIAMETER |
| ABNM | J | THICKNESS |
| ABRY | J | LENGTH |
| ACTD | J | NUT DIAMETER |
| ADEA | J | NUT HEIGHT |
| ADEV | J | RING OUTSIDE DIAMETER |
| ADEW | J | CENTER TO CENTER NUT SPACING |
| ADEX | J | CENTER TO CENTER NUT SPACING ALONG LENGTH |
| AJSE | J | SLEEVE DIAMETER |

Enter the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value.
(e.g., CSGHJDA45.0*; CSGHJRA1.6*; CSGHJDB40.0\$\$JDC47.0*)

| | |
|-------------------|---------------------|
| <u>REPLY CODE</u> | <u>REPLY (AP38)</u> |
| D | DEGREES |
| R | RADIANS |

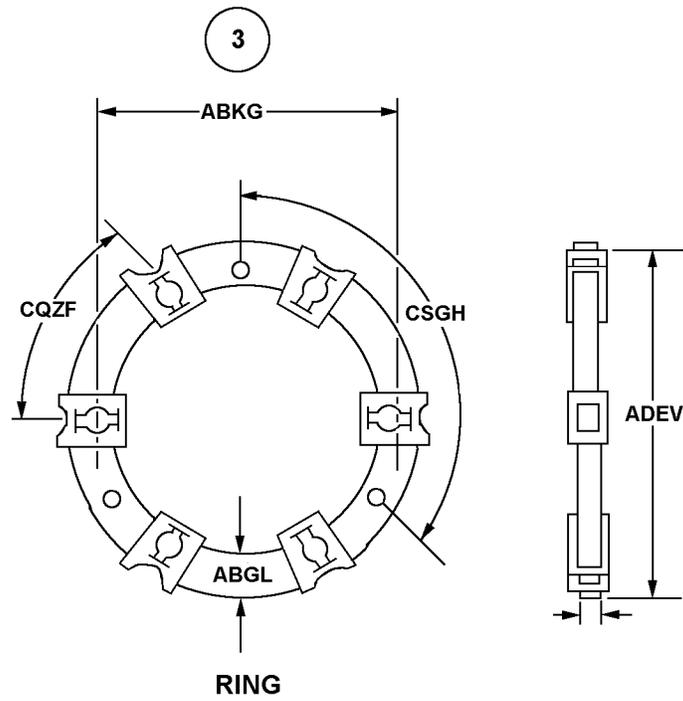
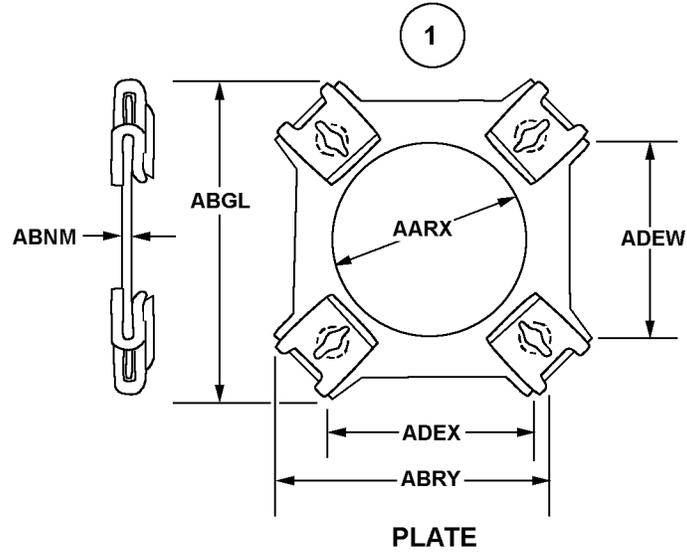
| | |
|-------------------|---------------------|
| <u>REPLY CODE</u> | <u>REPLY (AC20)</u> |
| A | NOMINAL |
| B | MINIMUM |
| C | MAXIMUM |

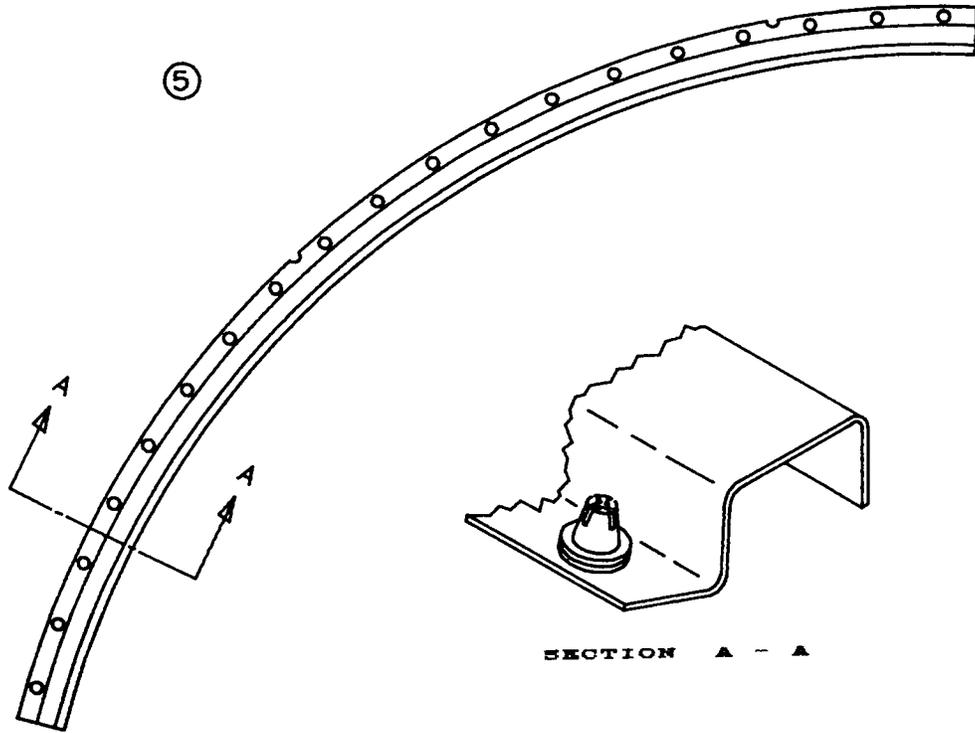
FIG A021A
APPENDIX B

| <u>MRC</u> | <u>Mode Code</u> | <u>Name of Dimension</u> |
|------------|------------------|-------------------------------|
| CSGH | J | MOUNTING HOLE ANGULAR SPACING |
| CQZF | J | NUT ANGULAR SPACING |

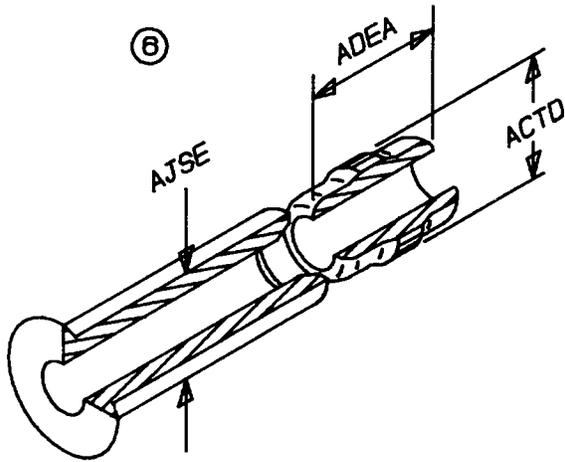
REFERENCE DRAWING GROUP B

ASSEMBLY NUTS

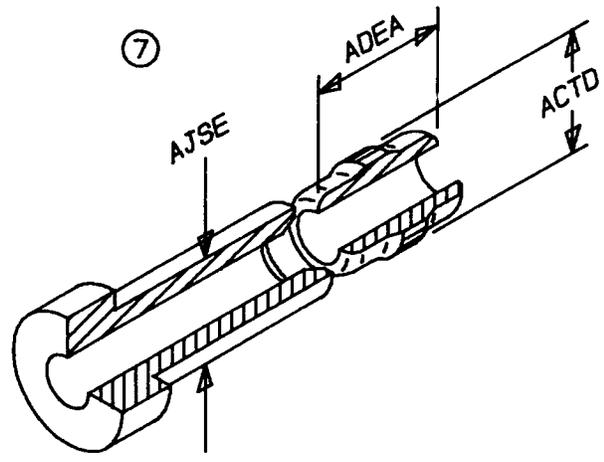




SPECIAL



FLUSH FLANGE



PROTRUDING FLANGE

REFERENCE DRAWING GROUP C Tables
CHANNEL DIMENSIONS

GANG CHANNEL SELF-LOCKING NUT ASSEMBLY

Enter the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value.
(e.g., ABHPJAA12.000*; ABHPJLA304.8*; ABHPJAB12.000\$\$JAC12.250*)

| <u>REPLY CODE</u> | <u>REPLY (AA05)</u> |
|-------------------|---------------------|
| A | INCHES |
| L | MILLIMETERS |

| <u>REPLY CODE</u> | <u>REPLY (AC20)</u> |
|-------------------|---------------------|
| A | NOMINAL |
| B | MINIMUM |
| C | MAXIMUM |

| <u>MRC</u> | <u>Mode Code</u> | <u>Name of Dimension</u> |
|------------|------------------|--------------------------|
| ABGG | J | RADIUS |
| ABHP | J | OVERALL LENGTH |
| ABMK | J | OVERALL WIDTH |
| ADFF | J | ASSEMBLY OVERALL HEIGHT |
| ADFG | J | CHANNEL HEIGHT |
| ADFH | J | NUT SPACING |

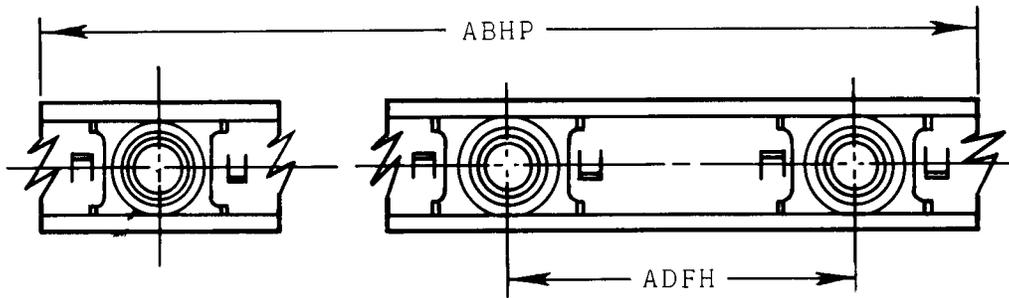
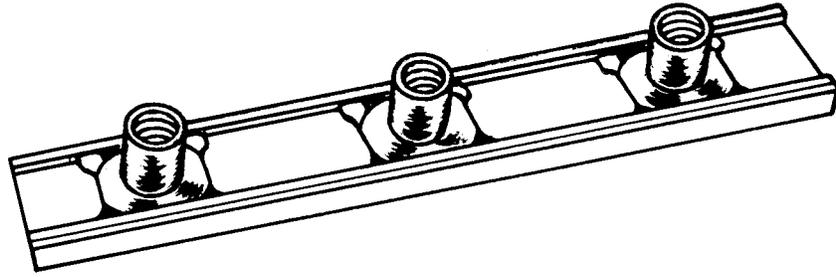
FIG A021A
APPENDIX B

REFERENCE DRAWING GROUP C

GANG CHANNEL SELF-LOCKING NUT ASSEMBLY

FIG A021A
APPENDIX B

①



STRAIGHT TYPE

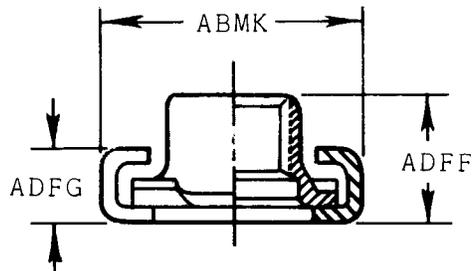
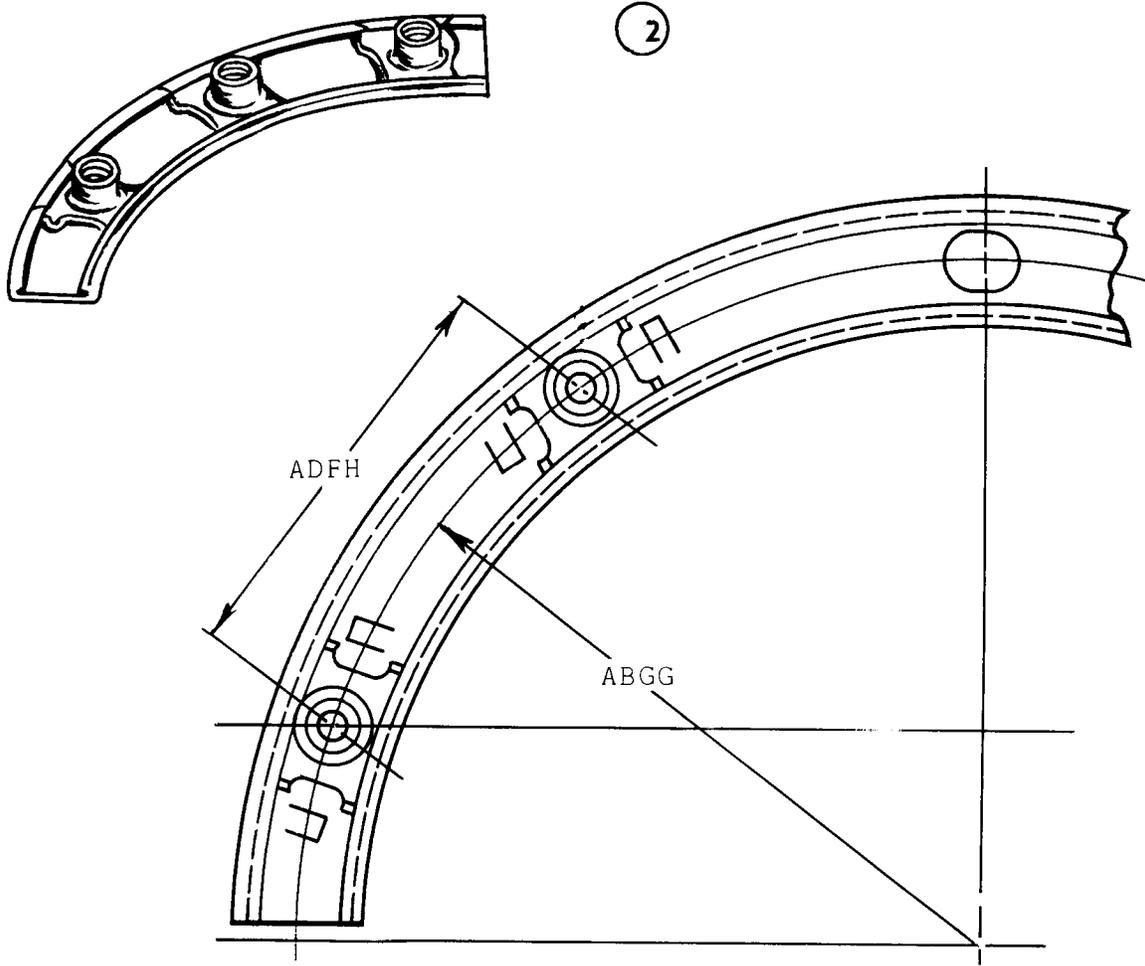
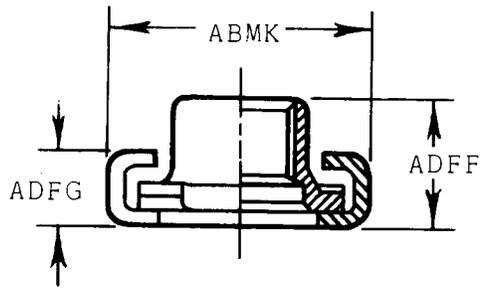


FIG A021A
APPENDIX B



RADIUS TYPE



REFERENCE DRAWING GROUP D Tables
HEAD STYLES

INDEX OF MASTER REQUIREMENT CODES

Enter the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value.
(e.g., AASLJAA0.375*; AASLJLA9.5*; AASLJAB0.370\$\$JAC0.380*)

| <u>REPLY CODE</u> | <u>REPLY (AA05)</u> |
|-------------------|---------------------|
| A | INCHES |
| L | MILLIMETERS |

| <u>REPLY CODE</u> | <u>REPLY (AC20)</u> |
|-------------------|---------------------|
| A | NOMINAL |
| B | MINIMUM |
| C | MAXIMUM |

| <u>MRC</u> | <u>Mode Code</u> | <u>Name of Dimension</u> |
|------------|------------------|----------------------------|
| AASL | J | HEAD DIAMETER |
| AAST | J | KEY LENGTH |
| AASU | J | HEAD HEIGHT |
| AASW | J | KEY PROJECTION LENGTH |
| AAZG | J | HEAD MAJOR DIAMETER |
| AAZH | J | HEAD MINOR DIAMETER |
| ADFL | J | HEAD PILOT DIAMETER |
| CFMR | J | OUTSIDE WIDTH ACROSS FLATS |

Enter the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value.
(e.g., CTPWJDA45.0*; CTPWJRA1.6*; CTPWJDB40.0\$\$JDC47.0*)

| <u>REPLY CODE</u> | <u>REPLY (AP38)</u> |
|-------------------|---------------------|
| D | DEGREES |
| R | RADIANS |

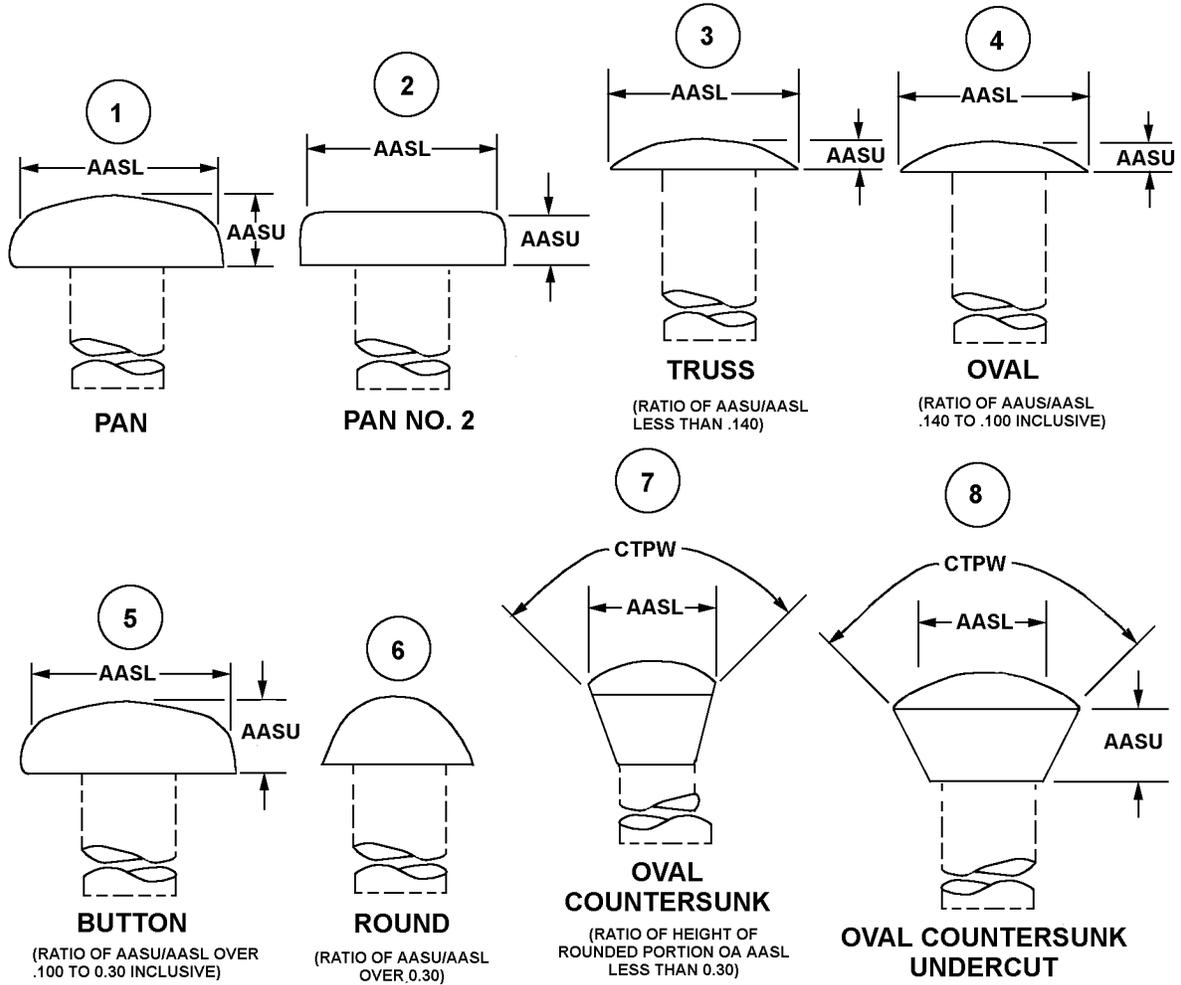
| <u>REPLY CODE</u> | <u>REPLY (AC20)</u> |
|-------------------|---------------------|
| A | NOMINAL |
| B | MINIMUM |
| C | MAXIMUM |

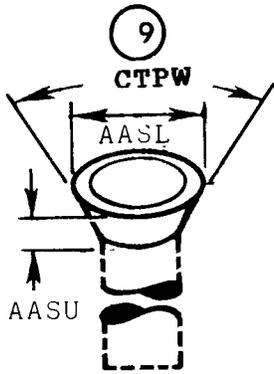
FIG A021A
APPENDIX B

| <u>MRC</u> | <u>Mode Code</u> | <u>Name of Dimension</u> |
|------------|------------------|------------------------------|
| CRKK | J | HEAD MAJOR COUNTERSINK ANGLE |
| CSLM | J | HEAD MINOR COUNTERSINK ANGLE |
| CTPW | J | HEAD COUNTERSINK ANGLE |

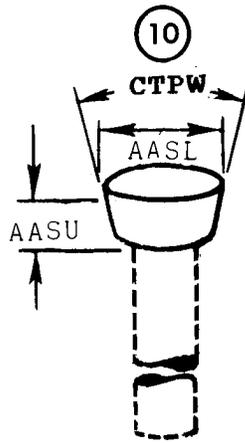
REFERENCE DRAWING GROUP D

HEAD STYLES





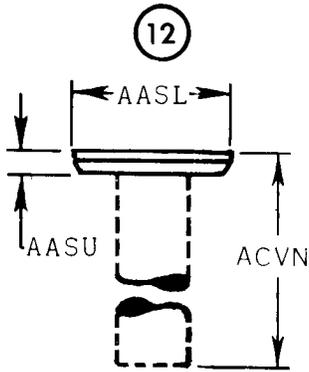
DISHED COUNTERSUNK



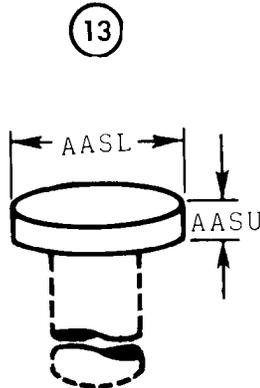
FLAT COUNTERSUNK
UNDERCUT



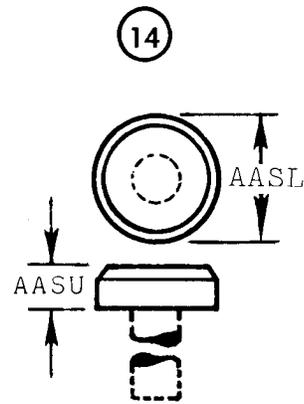
FLAT COUNTERSUNK
(INCLUDED ANGLE
LESS THAN 135 DEG)



FLUSH

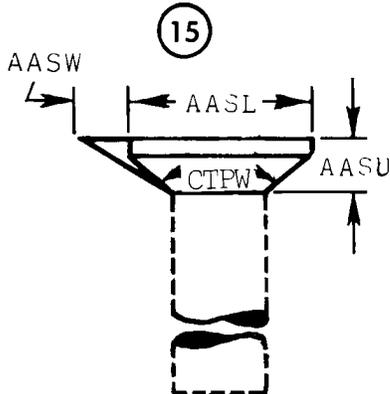


FLAT
(RATIO OF AASU/AASL
.35 AND LESS)

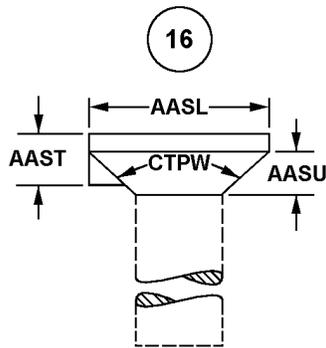


FLAT CHAMFER

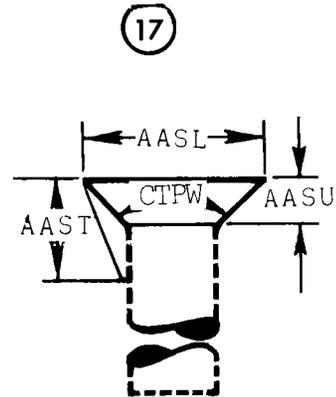
NOTE: DO NOT REFER TO MRC ACVN UNDER HEAD
STYLE DIMENSIONS. SEE REFERENCE DRAWINGS
GROUP A, BLIND RIVET NUTS.



FLAT COUNTERSUNK
KEYED



FLAT COUNTERSUNK,
REVERSE KEYED



FLAT COUNTERSUNK
REVERSE KEYED NO. 2

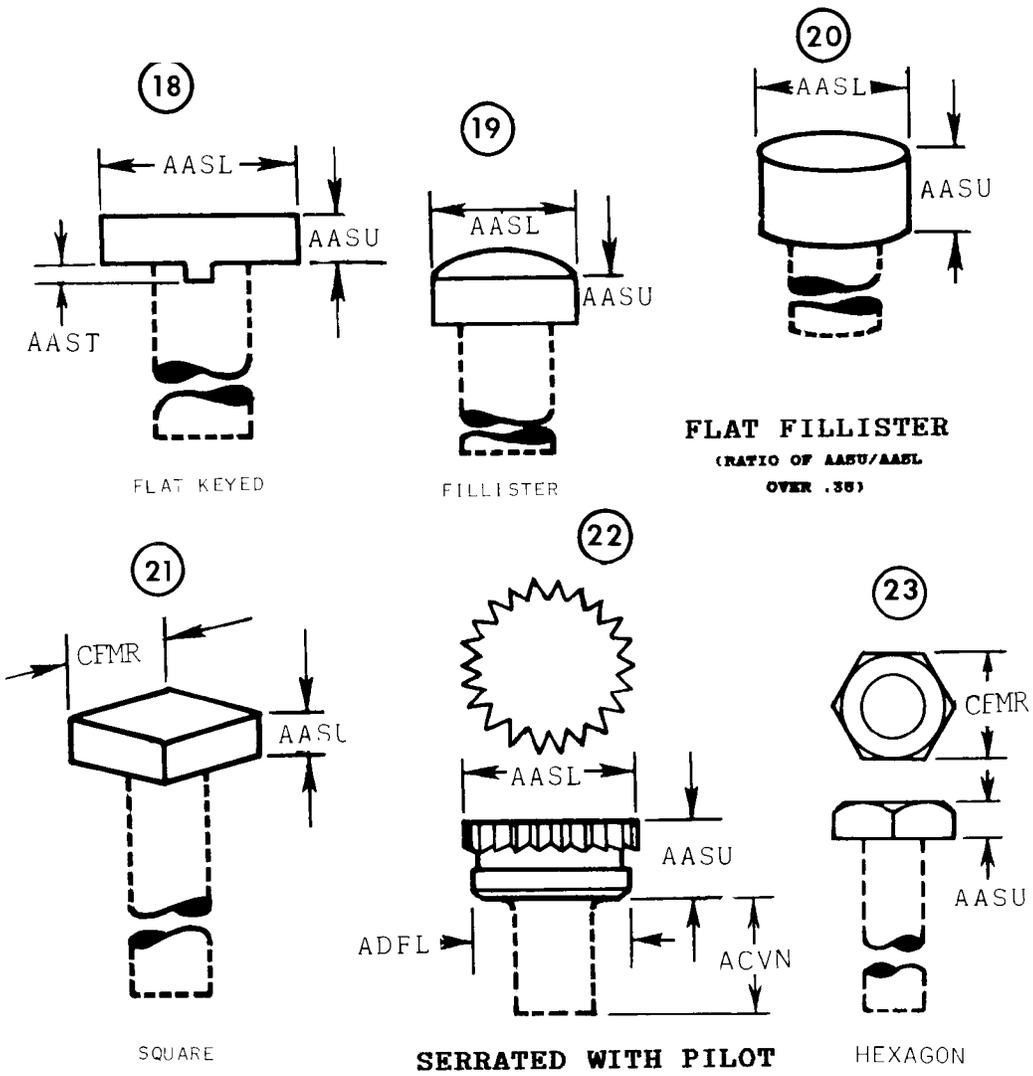
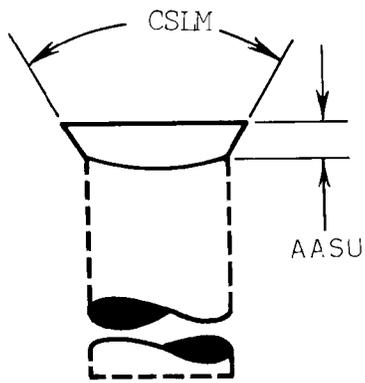
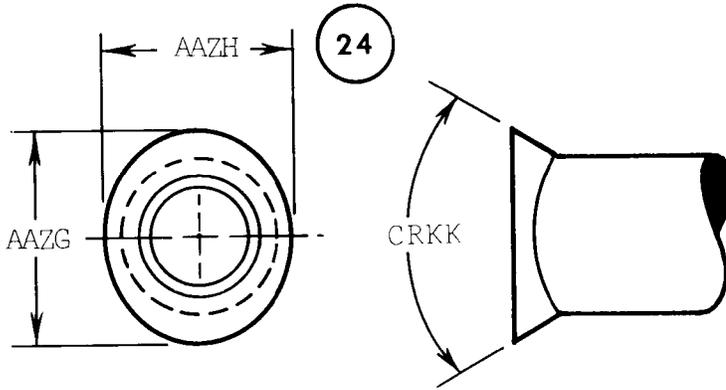
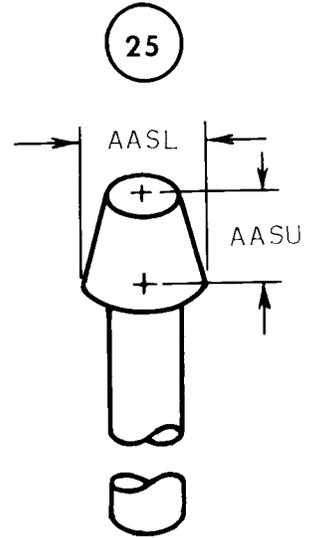


FIG A021A
APPENDIX B



ELLIPTICAL COUNTERSUNK



BEVEL

FIIG A021A
APPENDIX B

REFERENCE DRAWING GROUP E Tables
INTERNAL DRIVE RECESS DIMENSIONS

INDEX OF MASTER REQUIREMENT CODES

Enter the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value.
(e.g., AAUHJAA0.141*; AAUHJLA3.1*; AAUHJAB0.140\$\$JAC0.142*)

| <u>REPLY CODE</u> | <u>REPLY (AA05)</u> |
|-------------------|---------------------|
| A | INCHES |
| L | MILLIMETERS |

| <u>REPLY CODE</u> | <u>REPLY (AC20)</u> |
|-------------------|---------------------|
| A | NOMINAL |
| B | MINIMUM |
| C | MAXIMUM |

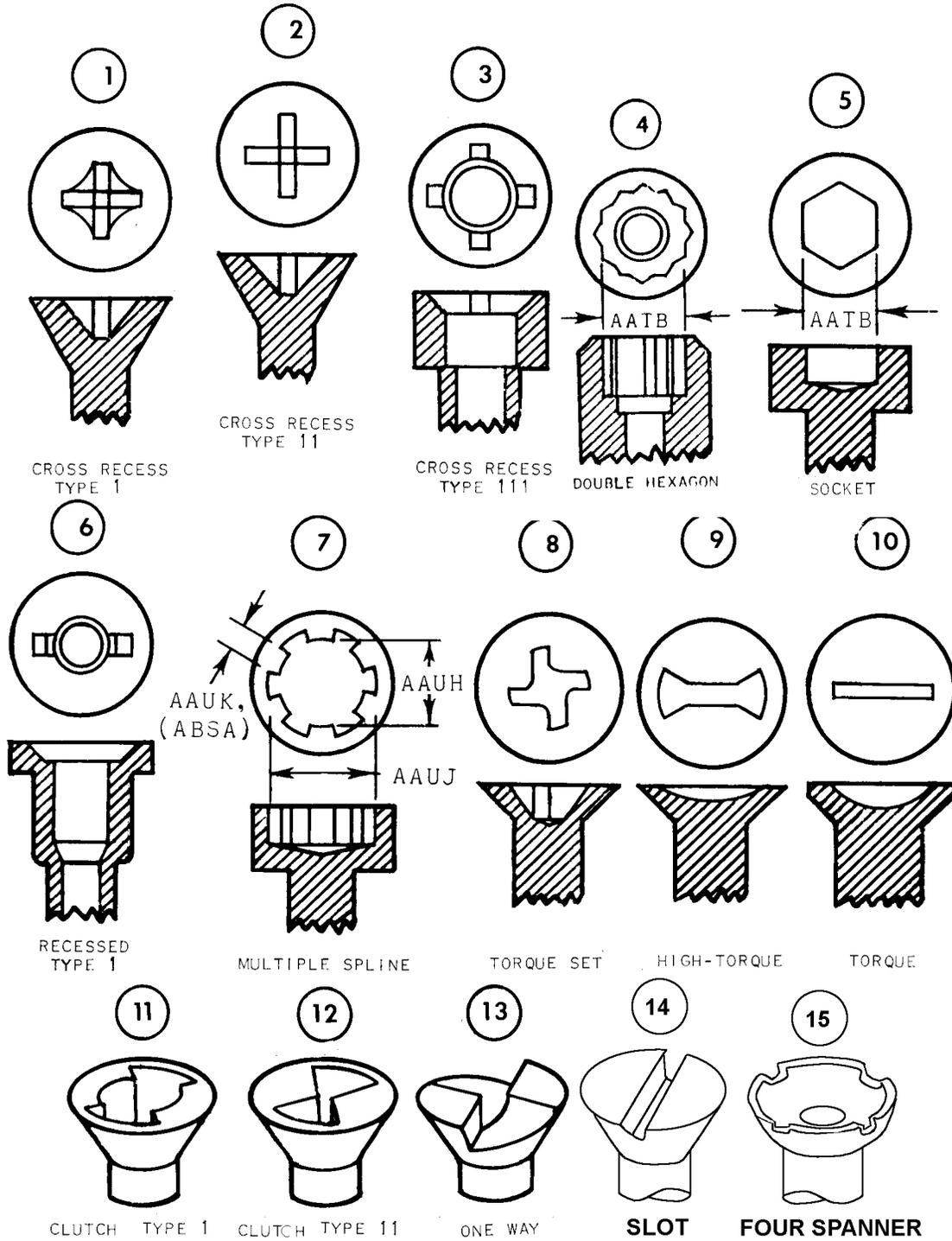
| <u>MRC</u> | <u>Mode Code</u> | <u>Name of Dimension</u> |
|------------|------------------|--------------------------|
| AATB | J | WIDTH BETWEEN FLATS |
| AAUH | J | SPLINE MINOR DIAMETER |
| AAUJ | J | SPLINE MAJOR DIAMETER |
| AAUK | J | SPLINE WIDTH |

Enter the quantity. (e.g., ABSAA2*)

| <u>MRC</u> | <u>Mode Code</u> | <u>Name of Dimension</u> |
|------------|------------------|--------------------------|
| ABSA | A | SPLINE QUANTITY |

REFERENCE DRAWING GROUP E

INTERNAL DRIVES



FIIG A021A
APPENDIX B

REFERENCE DRAWING GROUP F Tables
MOUNTING HOLE ARRANGEMENTS

Enter the applicable Reply Codes from Tables 1 and 2 below, followed by the numeric value.
(e.g., ADFVJAA0.125*; ADFVJLA3.1*; ADFVJAB0.125\$\$JAC0.150*)

| <u>REPLY CODE</u> | <u>REPLY (AA05)</u> |
|-------------------|---------------------|
| A | INCHES |
| L | MILLIMETERS |

| <u>REPLY CODE</u> | <u>REPLY (AC20)</u> |
|-------------------|---------------------|
| A | NOMINAL |
| B | MINIMUM |
| C | MAXIMUM |

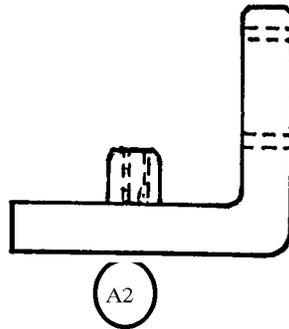
| <u>MRC</u> | <u>Mode Code</u> | <u>Name of Dimension</u> |
|------------|------------------|---|
| ABTB | J | MOUNTING HOLE DIAMETER |
| ABTD | J | MOUNTING SLOT WIDTH |
| ABVG | J | MOUNTING SLOT LENGTH |
| ADFV | J | DISTANCE FROM MOUNTING HOLE CENTER TO BASE |
| ADFW | J | DISTANCE FROM APERTURE CENTER TO MOUNTING HOLE CENTER |
| ADFX | J | CENTER TO CENTER DISTANCE BETWEEN MOUNTING HOLES ALONG WIDTH |
| ADFY | J | CENTER TO CENTER DISTANCE BETWEEN MOUNTING HOLES ALONG LENGTH |

REFERENCE DRAWING GROUP F

MOUNTING HOLE ARRANGEMENTS



STYLES 1 THRU 37 ARE 'L' SHAPED, BRACKET TYPE NUTS WITH MOUNTING HOLES AND NUT OR NUT APERTURE ON DIFFERENT PLANES.



STYLES 38 THRU 53 ARE FLAT SHAPED NUTS WITH MOUNTING HOLES AND NUT APETURE ON THE SAME PLANE.

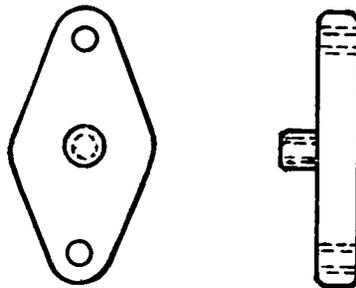
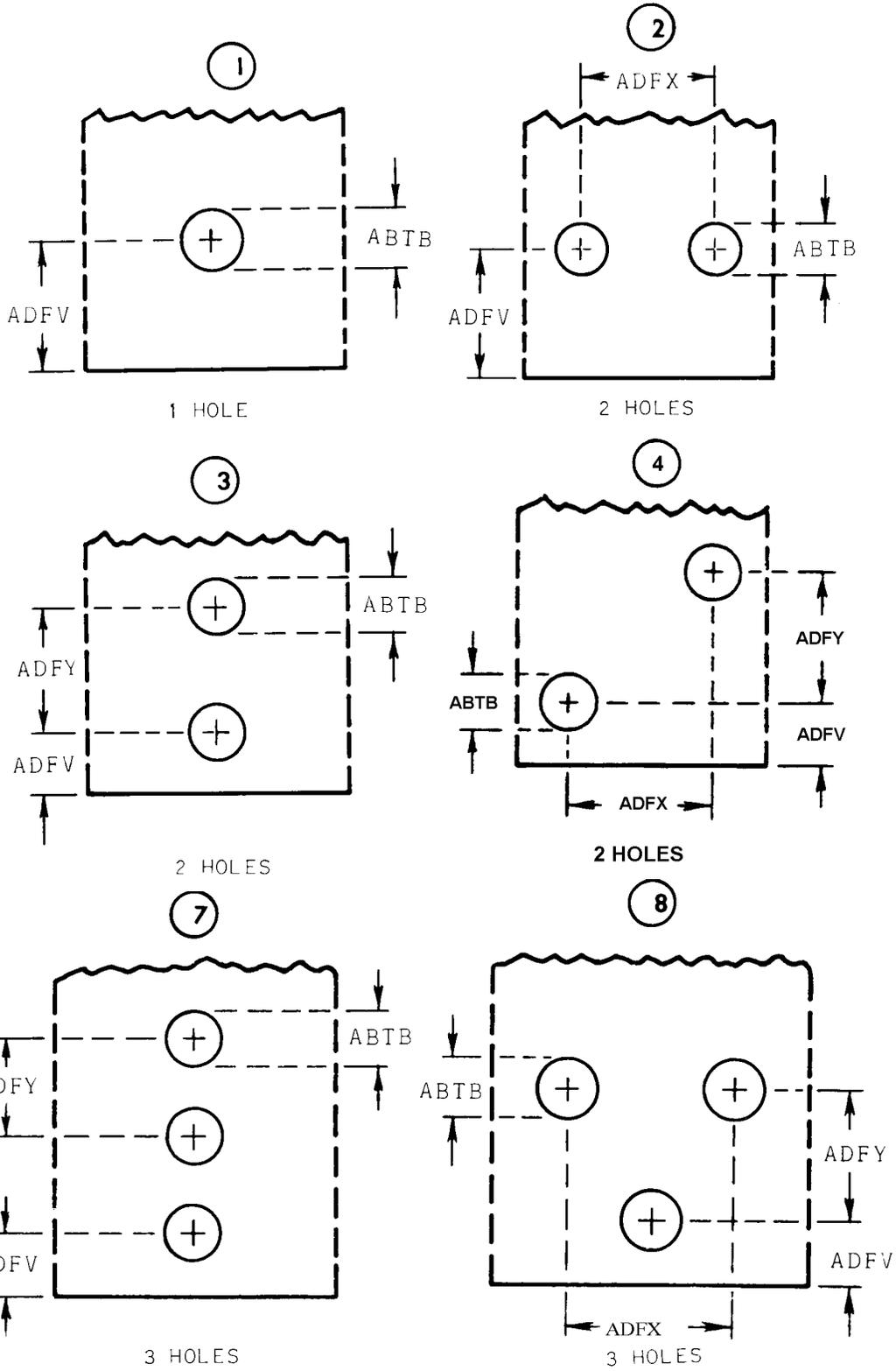
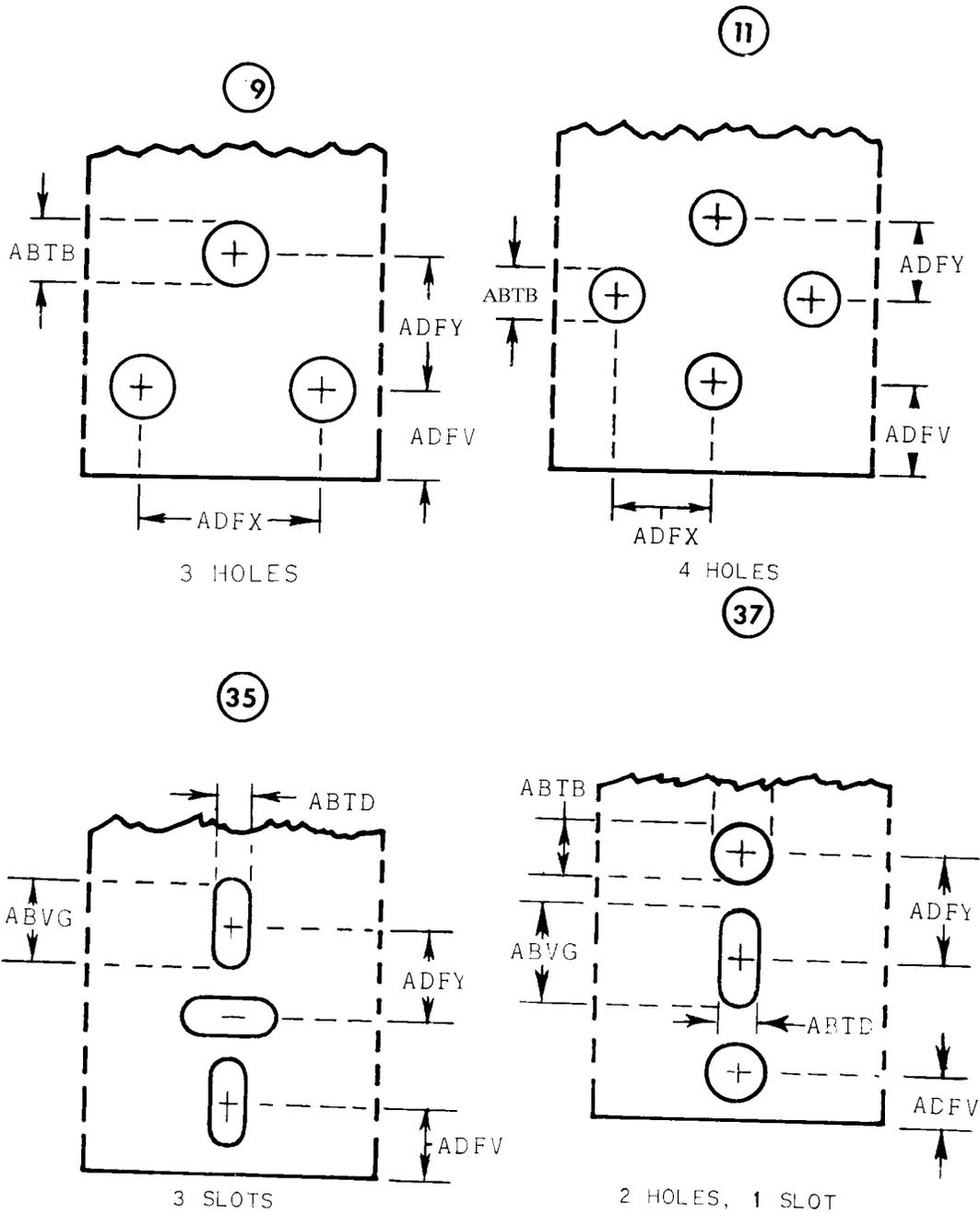
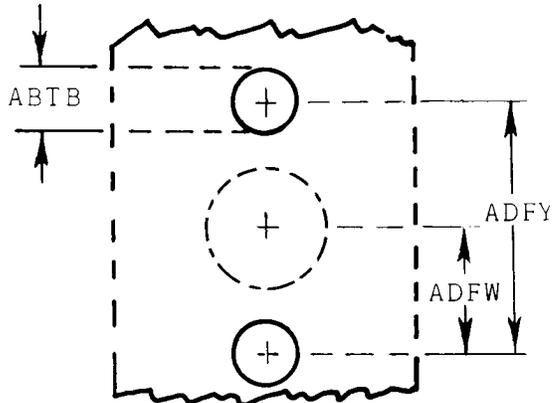


FIG A021A
APPENDIX B



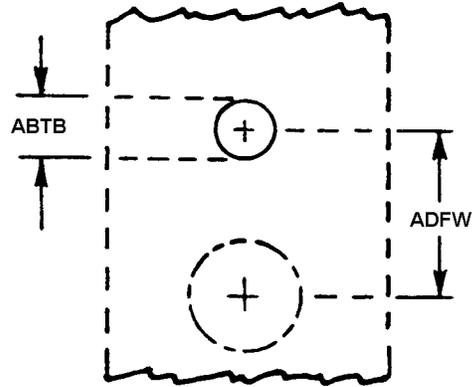


38



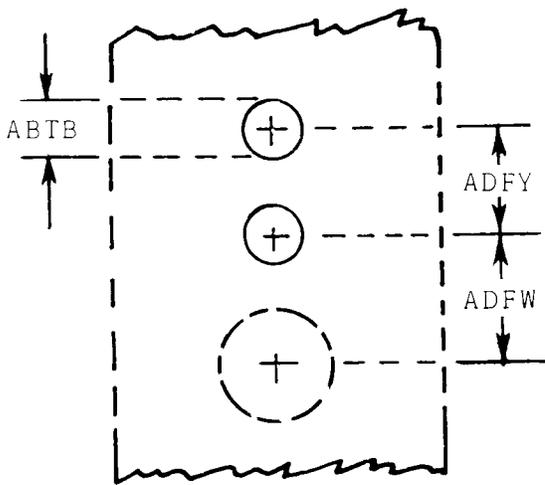
2 HOLES

43



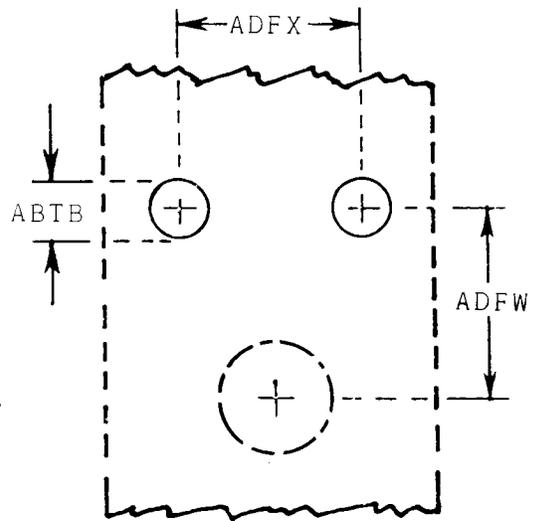
1 HOLE

44

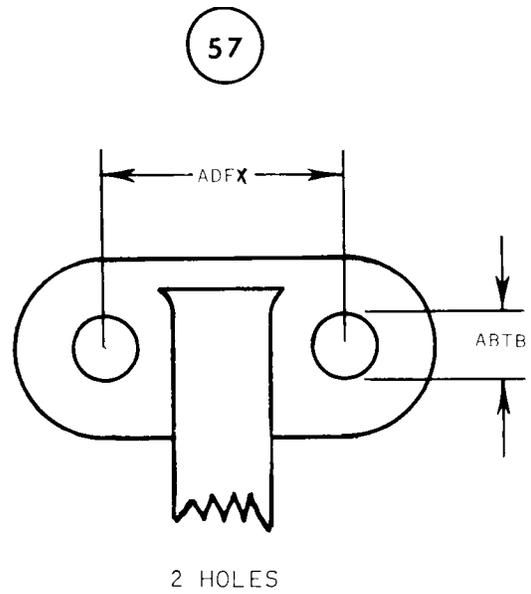
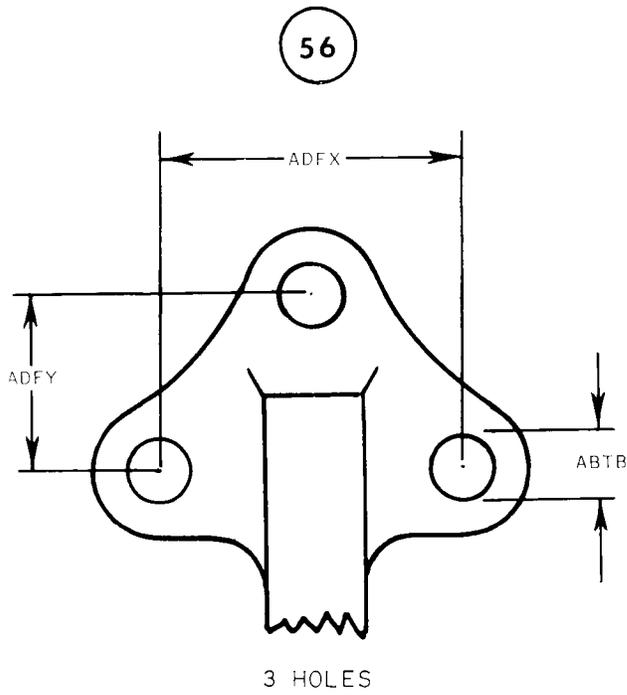
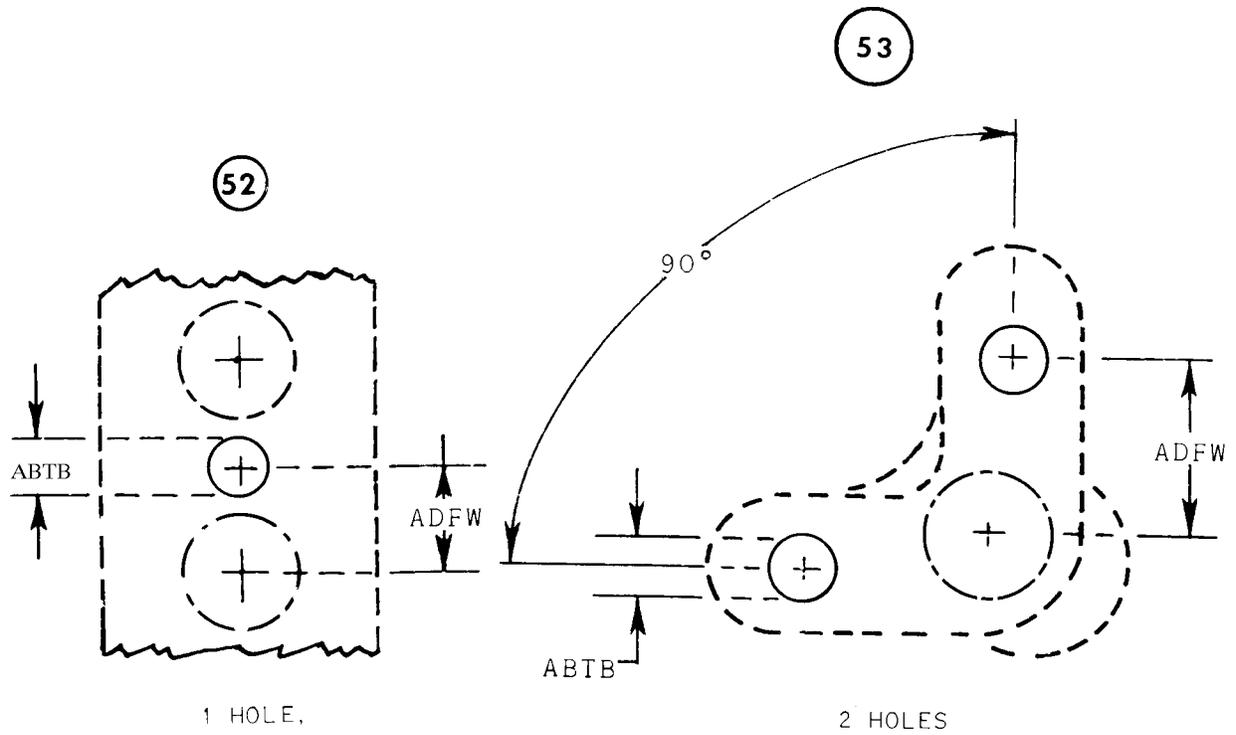


2 HOLES

45



2 HOLES



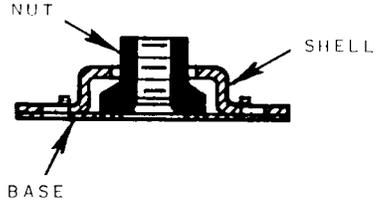
REFERENCE DRAWING GROUP G Tables
COMPONENT PARTS OF PLATE NUTS

NOTE: IN ORDER TO IDENTIFY AND TO ESTABLISH COMMON TERMINOLOGY FOR THE COMPONENT PARTS OF THE PLATE NUTS, THE FOLLOWING DEFINITIONS AND ILLUSTRATIONS SHALL BE UTILIZED WHEN DESCRIBING SUCH PLATE NUTS.

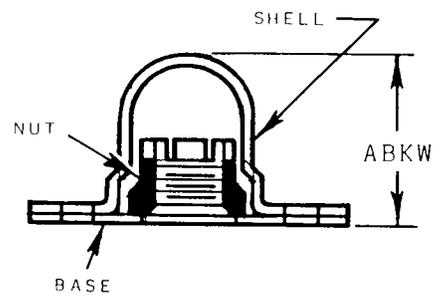
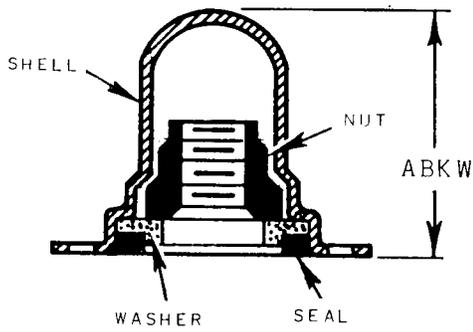
BASE (bottom, shim) - A part specifically designed to mate with the mounting surface of the shell, and retain the nut. It does not form a part of the mounting facilities. SHELL (retainer, basket) - A part specifically designed to retain and inclose all or part of the nut, and forms a part of the mounting facilities of the overall item. It may be mated with a base. CAP (dome) - The covered portion, fabricated to the nut for protection against dust and other contamination. It does not form a part of mounting facilities.

REFERENCE DRAWING GROUP G

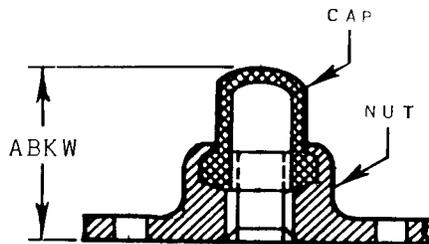
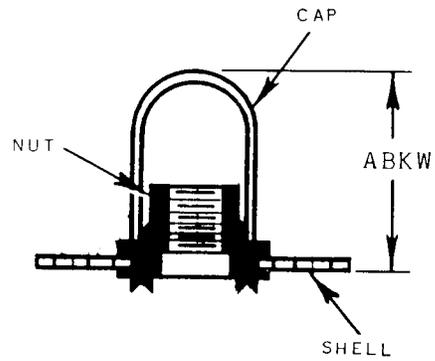
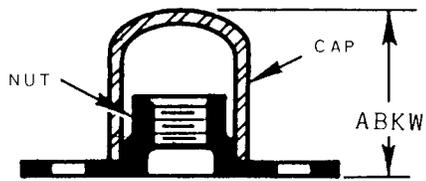
COMPONENT PARTS OF PLATE NUTS



NUT W/NON-ENCLOSING SHELL



NUT W/ENCLOSING SHELL

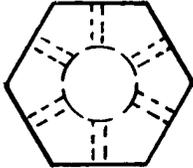


NUT, CAP (DOME)

REFERENCE DRAWING GROUP H

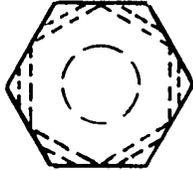
HOLE CONFIGURATION

1



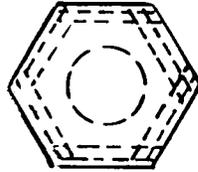
CONFIGURATION A

2



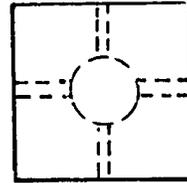
CONFIGURATION B

3



CONFIGURATION C

4



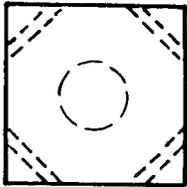
CONFIGURATION D

(Also for Octagon Shapes)

(Also for Octagon Shapes)

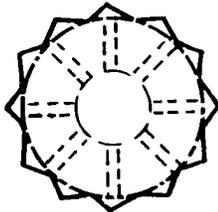
(Also for Octagon Shapes)

5



CONFIGURATION E

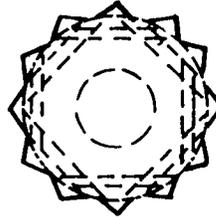
6



CONFIGURATION F

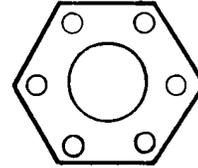
(For round and 12 point shapes)

7



(For round and 12 point shapes)

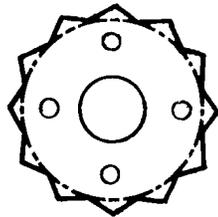
8



CONFIGURATION H

(Also for Octagon shapes)

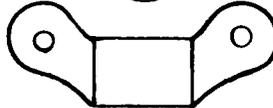
9



CONFIGURATION J

(For round and 12 point shapes)

10



CONFIGURATION K

Technical Data Tables

| | |
|--|-----|
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| METALLIC HARDNESS RATING CONVERSION CHART | 177 |
| CLARIFICATION OF TERMS AND RECORDING INSTRUCTIONS..... | 181 |
| IDENTIFIED SECONDARY ADDRESS CODING | 190 |

FIG A021A
APPENDIX C

STANDARD FRACTION TO DECIMAL CONVERSION CHART

| <u>4ths</u> | <u>8ths</u> | <u>16ths</u> | <u>32nds</u> | <u>64ths</u> | <u>To 3</u> | <u>To 4</u> | <u>4ths</u> | <u>8ths</u> | <u>16ths</u> | <u>32nds</u> | <u>64ths</u> | <u>To 3</u> | <u>To 4</u> |
|-------------|-------------|--------------|--------------|--------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|-------------|-------------|
| | | | | 1/64 | .016 | .0156 | | | | | 33/64 | .516 | .5156 |
| | | | 1/32 | ----- | .031 | .0312 | | | | 17/32 | ----- | .531 | .5312 |
| | | | | 3/64 | .047 | .0469 | | | | | 35/64 | .547 | .5469 |
| | | 1/16 | ----- | | .062 | .0625 | | | 9/16 | ----- | ----- | .562 | .5625 |
| | | | | 5/64 | .078 | .0781 | | | | | 37/64 | .578 | .5781 |
| | | | 3/32 | ----- | .094 | .0938 | | | | 19/32 | ----- | .594 | .5938 |
| | | | | 7/64 | .109 | .1094 | | | | | 39/64 | .609 | .6094 |
| | 1/8 | ----- | ----- | ----- | .125 | .1250 | 5/8 | ----- | ----- | ----- | ----- | .625 | .6250 |
| | | | | 9/64 | .141 | .1406 | | | | | 41/64 | .641 | .6406 |
| | | | 5/32 | ----- | .156 | .1562 | | | | 21/32 | ----- | .656 | .6562 |
| | | 3/16 | ----- | ----- | .172 | .1719 | | | | | 43/64 | .672 | .6719 |
| | | | | ----- | .188 | .1875 | | | 11/16 | ----- | ----- | .688 | .6875 |
| | | | | 13/64 | .203 | .2031 | | | | | 45/64 | .703 | .7031 |
| | | | 7/32 | ----- | .219 | .2188 | | | | 23/32 | ----- | .719 | .7188 |
| | | | | 15/64 | .234 | .2344 | | | | | 47/64 | .734 | .7344 |
| 1/4 | ----- | ----- | ----- | ----- | .250 | .2500 | 3/4 | ----- | ----- | ----- | ----- | .750 | .7500 |
| | | | | 17/64 | .266 | .2656 | | | | | 49/64 | .766 | .7656 |
| | | | 9/32 | ----- | .281 | .2812 | | | | 25/32 | ----- | .781 | .7812 |
| | | | | 19/64 | .297 | .2969 | | | | | 51/64 | .797 | .7969 |
| | | 5/16 | ----- | ----- | .312 | .3125 | | | 13/16 | ----- | ----- | .812 | .8125 |
| | | | | 21/64 | .328 | .3281 | | | | | 53/64 | .828 | .8281 |
| | | | 11/32 | ----- | .344 | .3438 | | | | 27/32 | ----- | .844 | .8438 |
| | | | | 23/64 | .359 | .3594 | | | | | 55/64 | .859 | .8594 |
| | 3/8 | ----- | ----- | ----- | .375 | .3750 | 7/8 | ----- | ----- | ----- | ----- | .875 | .8750 |
| | | | | 25/64 | .391 | .3906 | | | | | 57/64 | .891 | .8906 |
| | | | 13/32 | ----- | .406 | .4062 | | | | 29/32 | ----- | .906 | .9062 |
| | | | | 27/64 | .422 | .4219 | | | | | 59/64 | .922 | .9219 |
| | | 7/16 | ----- | ----- | .438 | .4375 | | | 15/16 | ----- | ----- | .938 | .9375 |
| | | | | 29/64 | .453 | .4531 | | | | | 61/64 | .953 | .9531 |
| | | | 15/32 | ----- | .469 | .4688 | | | | 31/32 | ----- | .969 | .9688 |
| | | | | 31/64 | .484 | .4844 | | | | | 63/64 | .984 | .9844 |
| | | | | | .500 | .5000 | | | | | | 1.000 | 1.0000 |

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APPENDIX C

METALLIC HARDNESS RATING CONVERSION CHART

| <u>ROCKWELL L HARDNES S</u> | <u>DIAMON D PYRAMID HARDNES S NO.</u> | <u>BRINELL HARDNES S</u> | <u>TUNGSTE N CARBIDE BALL</u> | <u>SHORE SCLERSCOPE HARDNESS NO.</u> | <u>ROCKWELL SUPERFICI AL HARDNESS</u> |
|---|---|----------------------------------|---|--|---|
| <u>A</u> | <u>B</u> | <u>C</u> | <u>D</u> | | |
| | <u>15-N</u> | <u>30-N</u> | <u>45-N</u> | | |
| RA | RB | RC | RD | VF | BS B BT RS RU RN S H C |
| 85.6 | ---- | 68 | 76.9 | 940 | -- -- -- 93. 84. 75. 97 2 4 4 |
| 85.0 | ---- | 67 | 76.1 | 900 | -- -- -- 92. 83. 74. 95 9 6 2 |
| 84.5 | ---- | 66 | 75.4 | 865 | -- -- -- 92. 82. 73. 92 5 8 3 |
| 83.9 | ---- | 65 | 74.5 | 832 | -- -- 73 92. 81. 72. 91 9 2 9 0 |
| 83.4 | ---- | 64 | 73.8 | 800 | -- -- 72 91. 81. 71. 88 2 8 1 0 |
| 82.8 | ---- | 63 | 73.0 | 772 | -- -- 70 91. 80. 69. 87 5 4 1 9 |
| 82.3 | ---- | 62 | 72.2 | 746 | -- -- 68 91. 79. 68. 85 8 1 3 8 |
| 81.8 | ---- | 61 | 71.5 | 720 | -- -- 67 90. 78. 67. 83 0 7 4 7 |
| 81.2 | ---- | 60 | 70.7 | 697 | -- 61 65 90. 77. 66. 81 3 4 2 5 6 |
| 80.7 | ---- | 59 | 69.9 | 674 | -- 59 63 89. 76. 65. 80 9 4 9 6 5 |
| 80.1 | ---- | 58 | 69.2 | 653 | -- 58 61 89. 75. 64. 78 |

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| <u>ROCKWELL L HARDNES S</u> | <u>DIAMON D PYRAMID HARDNES S NO.</u> | <u>BRINELL HARDNES S</u> | <u>TUNGSTE N CARBIDE BALL</u> | <u>SHORE SCLERSCOP E HARDNESS NO.</u> | <u>ROCKWELL SUPERFICI AL HARDNESS</u> | | | | | | |
|---|---|----------------------------------|---|---|---|--------------|--------------|---------------|---------------|---------------|----|
| <u>A</u> | <u>B</u> | <u>C</u> | <u>D</u> | | | | | | | | |
| | <u>15-N</u> | <u>30-N</u> | <u>45-N</u> | | | | | | | | |
| 79.6 | ---- | 57 | 68.5 | 633 | -- | 7 57 5 | 5 59 5 | 3 88. 9 | 7 74. 8 | 3 63. 2 | 76 |
| 79.0 | ---- | 56 | 67.7 | 613 | -- | 56 1 | 57 7 | 88. 3 | 73. 9 | 62. 0 | 75 |
| 78.5 | ---- | 55 | 66.9 | 595 | -- | 54 6 | 56 0 | 87. 9 | 73. 0 | 60. 9 | 74 |
| 78.0 | ---- | 54 | 66.1 | 577 | -- | 53 4 | 54 3 | 87. 4 | 72. 0 | 59. 8 | 72 |
| 77.4 | ---- | 53 | 65.4 | 560 | -- | 51 9 | 52 5 | 86. 9 | 71. 2 | 58. 6 | 71 |
| 76.8 | ---- | 52 | 64.6 | 544 | 50 | 50 0 | 51 8 | 86. 2 | 70. 4 | 57. 4 | 69 |
| 76.3 | ---- | 51 | 63.8 | 528 | 48 | 49 7 | 49 4 | 85. 6 | 69. 9 | 56. 4 | 68 |
| 75.9 | ---- | 50 | 63.1 | 513 | 47 | 48 5 | 48 1 | 85. 5 | 68. 5 | 55. 0 | 67 |
| 75.2 | ---- | 49 | 62.1 | 498 | 46 | 46 4 | 46 9 | 85. 0 | 67. 6 | 53. 8 | 66 |
| 74.7 | ---- | 48 | 61.4 | 484 | 45 | 45 1 | 45 5 | 84. 5 | 66. 7 | 52. 5 | 64 |
| 74.1 | ---- | 47 | 60.8 | 471 | 44 | 44 2 | 44 3 | 83. 9 | 65. 8 | 51. 4 | 63 |
| 73.6 | ---- | 46 | 60.0 | 458 | 43 | 43 2 | 43 2 | 83. 5 | 64. 8 | 50. 3 | 62 |
| 73.1 | ---- | 45 | 59.2 | 446 | 42 | 42 1 | 42 1 | 83. 0 | 64. 0 | 49. 0 | 60 |
| 72.5 | ---- | 44 | 58.5 | 434 | 40 | 40 40 | 40 40 | 82. 82. | 63. 63. | 47. 47. | 58 |

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APPENDIX C

| <u>ROCKWELL L HARDNES S</u> | <u>DIAMON D PYRAMID HARDNES S NO.</u> | <u>BRINELL HARDNES S</u> | <u>TUNGSTE N CARBIDE BALL</u> | <u>SHORE SCLERSCOPE HARDNESS NO.</u> | | | | | | | |
|---|---|----------------------------------|---|--|----|----|----|-----|-----|-----|----|
| <u>A</u> | <u>B</u> | <u>C</u> | <u>D</u> | | | | | | | | |
| | <u>15-N</u> | <u>30-N</u> | <u>45-N</u> | | | | | | | | |
| | | | | 9 | 9 | 9 | 5 | 1 | 8 | | |
| 72.0 | ---- | 43 | 57.7 | 423 | 40 | 40 | 40 | 82. | 62. | 46. | 57 |
| | | | | | 0 | 0 | 0 | 0 | 2 | 7 | |
| 71.5 | ---- | 42 | 56.9 | 412 | 39 | 39 | 39 | 81. | 63. | 45. | 56 |
| | | | | | 0 | 0 | 0 | 5 | 1 | 5 | |
| 70.9 | ---- | 41 | 56.2 | 402 | 38 | 38 | 38 | 80. | 60. | 44. | 55 |
| | | | | | 1 | 1 | 1 | 9 | 4 | 3 | |
| 70.04 | -- | 40 | 55.4 | 392 | 37 | 37 | 37 | 80. | 59. | 43. | 54 |
| | | | | | 1 | 1 | 1 | 4 | 5 | 1 | |
| 69.9 | -- | 39 | 54.6 | 382 | 36 | 36 | 36 | 79. | 56. | 49. | 52 |
| | | | | | 2 | 2 | 2 | 9 | 8 | 1 | |
| 69.4 | -- | 38 | 53.8 | 372 | 35 | 35 | 35 | 79. | 57. | 40. | 51 |
| | | | | | 3 | 3 | 3 | 4 | 7 | 8 | |
| 68.9 | -- | 37 | 53.1 | 363 | 34 | 34 | 34 | 78. | 56. | 39. | 50 |
| | | | | | 4 | 4 | 4 | 8 | 8 | 6 | |
| 68.4 | (109.0) | 36 | 52.3 | 354 | 33 | 33 | 33 | 78. | 55. | 38. | 49 |
| | | | | | 6 | 6 | 6 | 3 | 9 | 4 | |
| 67.9 | (108.5) | 35 | 51.5 | 345 | 32 | 32 | 32 | 77. | 55. | 37. | 48 |
| | | | | | 7 | 7 | 7 | 7 | 0 | 2 | |
| 67.4 | (108.0) | 34 | 50.8 | 336 | 31 | 31 | 31 | 77. | 54. | 36. | 47 |
| | | | | | 9 | 9 | 9 | 2 | 2 | 1 | |
| 66.8 | (107.5) | 33 | 50.0 | 327 | 31 | 31 | 31 | 76. | 53. | 34. | 46 |
| | | | | | 1 | 1 | 1 | 6 | 3 | 9 | |
| 66.3 | (107.0) | 32 | 49.2 | 318 | 30 | 30 | 30 | 76. | 52. | 33. | 44 |
| | | | | | 1 | 1 | 1 | 1 | 1 | 7 | |
| 65.8 | (106.0) | 31 | 48.4 | 310 | 29 | 29 | 29 | 75. | 51. | 32. | 43 |
| | | | | | 4 | 4 | 4 | 6 | 3 | 5 | |
| 65.3 | (105.5) | 30 | 47.7 | 302 | 28 | 28 | 28 | 75. | 50. | 31. | 42 |

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APPENDIX C

| <u>ROCKWELL L HARDNES S</u> | <u>DIAMON D PYRAMID HARDNES S NO.</u> | <u>BRINELL HARDNES S</u> | <u>TUNGSTE N CARBIDE BALL</u> | <u>SHORE SCLERSCOPE HARDNESS NO.</u> | | | | | | | |
|---|---|----------------------------------|---|---|----|----|----|-----|-----|-----|----|
| <u>A</u> | <u>STD BALL</u> | <u>HULT- GREN BALL</u> | <u>D</u> | <u>ROCKWELL SUPERFICI AL HARDNESS</u> | | | | | | | |
| | <u>B</u> | <u>C</u> | <u>D</u> | | | | | | | | |
| | <u>15-N</u> | <u>30-N</u> | <u>45-N</u> | | | | | | | | |
| 64.7 | (104.5) | 29 | 47.0 | 294 | 6 | 6 | 6 | 0 | 4 | 3 | |
| | | | | | 27 | 27 | 27 | 74. | 49. | 30. | 41 |
| | | | | | 9 | 9 | 9 | 5 | 5 | 1 | |
| 64.3 | (104.0) | 28 | 46.1 | 286 | 27 | 27 | 27 | 73. | 48. | 28. | 41 |
| | | | | | 1 | 1 | 1 | 9 | 6 | 9 | |
| 63.8 | (103.0) | 27 | 45.2 | 279 | 26 | 26 | 26 | 73. | 47. | 27. | 40 |
| | | | | | 4 | 4 | 4 | 3 | 8 | 8 | |
| 63.3 | (102.5) | 26 | 44.6 | 272 | 25 | 25 | 25 | 72. | 46. | 26. | 38 |
| | | | | | 8 | 8 | 8 | 8 | 8 | 7 | |
| 62.8 | (101.5) | 25 | 43.8 | 266 | 25 | 25 | 25 | 72. | 45. | 25. | 38 |
| | | | | | 3 | 3 | 3 | 2 | 9 | 5 | |
| 62.4 | (101.0) | 24 | 43.1 | 260 | 24 | 24 | 24 | 71. | 45. | 24. | 37 |
| | | | | | 7 | 7 | 7 | 6 | 0 | 3 | |
| 62.0 | 100.0 | 23 | 42.1 | 254 | 24 | 24 | 24 | 71. | 44. | 23. | 36 |
| | | | | | 3 | 3 | 3 | 0 | 0 | 1 | |
| 61.5 | 99.0 | 22 | 41.6 | 248 | 23 | 23 | 23 | 70. | 43. | 22. | 35 |
| | | | | | 7 | 7 | 7 | 5 | 2 | 0 | |
| 61.0 | 98.5 | 21 | 40.9 | 243 | 23 | 23 | 23 | 69. | 42. | 20. | 35 |
| | | | | | 1 | 1 | 1 | 9 | 3 | 7 | |
| 60.5 | 97.8 | 20 | 40.1 | 238 | 22 | 22 | 22 | 69. | 41. | 19. | 34 |
| | | | | | 6 | 6 | 9 | 4 | 5 | 6 | |
| -- | 96.7 | (18) | -- | 230 | 21 | 21 | 21 | -- | -- | -- | 33 |
| | | | | | 9 | 9 | 9 | | | | |
| -- | 95.5 | (16) | -- | 222 | 21 | 21 | 21 | -- | -- | -- | 32 |
| | | | | | 2 | 2 | 2 | | | | |
| -- | 93.9 | (14) | -- | 213 | 20 | 20 | 20 | -- | -- | -- | 31 |
| | | | | | 3 | 3 | 3 | | | | |
| -- | 92.3 | (12) | -- | 204 | 19 | 19 | 19 | -- | -- | -- | 29 |
| | | | | | 4 | 4 | 4 | | | | |

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| <u>ROCKWELL L HARDNES S</u> | <u>DIAMON D PYRAMID HARDNES S NO.</u> | <u>BRINELL HARDNES S</u> | <u>TUNGSTE N CARBIDE BALL</u> | <u>SHORE SCLERSCOP E HARDNESS NO.</u> | <u>ROCKWELL SUPERFICI AL HARDNESS</u> |
|---|---|----------------------------------|---|---|---|
| <u>A</u> | <u>B</u> | <u>C</u> | <u>D</u> | | |
| | <u>15-N</u> | <u>30-N</u> | <u>45-N</u> | | |
| -- | 90.7 | (10) | -- | 196 | 18 18 18 -- -- -- 28 |
| -- | 89.5 | (8) | -- | 188 | 7 7 7 -- -- -- 27 |
| -- | 87.1 | (6) | -- | 180 | 17 17 17 -- -- -- 26 |
| -- | 85.5 | (4) | -- | 173 | 9 9 9 -- -- -- 25 |
| -- | 83.5 | (2) | -- | 166 | 17 17 17 -- -- -- 24 |
| -- | 81.7 | (0) | -- | 160 | 1 1 1 -- -- -- 24 |
| | | | | | 15 15 15 -- -- -- 24 |
| | | | | | 8 8 8 |
| | | | | | 5 5 5 |
| | | | | | 2 2 2 |

CLARIFICATION OF TERMS AND RECORDING INSTRUCTIONS

- MATERIAL - The input for MRC MATT will be the name of the basic material and the chemical analysis designator when applicable.
- CHEMICAL ANALYSIS DESIGNATOR - The assigned designation that represents and indicates the percentage or proportions of the various elements within a material.
- MATERIAL DOCUMENT - The specification and/or standard that restricts the percentage or proportions of the various elements within a material.
- PHYSICAL PRIORITIES - The various physical conditions of a material/surface treatment such as class, temper, and etc.
- SURFACE TREATMENT COMPOUND DESIGNATION - The input for MRC SFTT will be the name of the protective coating and the compound designator when applicable.
- COMPOUND DESIGNATION - The assigned designation that represents and indicates the percentage or proportion of various elements within a surface treatment.

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APPENDIX C

DATA CHAIN - A data chain represents encoded characteristic data in a description of an item. It consists of the Master Requirement Code, Mode Code, and the Reply Field in coded and/or clear text as designated by the Mode Code. It may include the Identified Secondary Address Coding (ISAC) when more than one location is specified, and may include either of the and/or symbols.

Detailed Recording Instructions

STEEL, QQ-S-634, COMP 1020, COND CD

CADMIUM QQ-P-416, TYPE 1, CLASS 2

MATT2AADST1020*

MDCL2AAJBAQQ-S-634, COND CD*

SFTT2AADCD0000*

STDC2AAJBAQQ-P-416, TYPE 1, CLASS 2*

ALUMINUM ALLOY, QQ-A-250/5, ALLOY 2024, TEMPER 4 and

STEEL, QQ-S-634, COMP 1020, COND CD.

ANODIZED, MIL-A-8625, TYPE 1, CLASS 1 and

CADMIUM, QQ-P-416, TYPE 1, CLASS 2.

MATT2AADAL2024\$\$DST1020*

MDCL2AAJBBQQ-A-250/5, T4\$\$JBCQQ-S-634, COND CD*

SFTT2AADAN0000\$\$DCD0000*

STDC2AAJDBMIL-A-8625, TYPE 1, CLASS 1\$\$JBCQQ-P-416, TYPE 1, CLASS 2*

ALUMINUM ALLOY, QQ-A-250/5, ALLOY 2024, TEMPER 4 OR

STEEL, QQ-S-634, COMP 1020, COND CD AND

ANODIZED, MIL-A-8625, TYPE 1, CLASS 1 OR

CADMIUM, QQ-P-416, TYPE 1, CLASS 2.

MATT2AADAL2024\$DST1020*

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APPENDIX C

MDCL2AAJBBQQ-S-250/5, T4\$JBCQQ-S-634, COND CD*

SFTT2AADAN0000\$DCD0000*

STDC2AAJDBMIL-A-8625, TYPE 1, CLASS 1\$JBCQQ-P-416, TYPE 1, CLASS 2.

ALUMINUM ALLOY, QQ-A-250/5, ALLOY 2024, T4 AND

STEEL, QQ-S-634, COMP 1020, COND CD OR

ALUMINUM ALLOY, QQ-A-250/5, ALLOY 2024, T4 AND

STEEL, QQ-S-634, COMP 1040, COND ACD AND

ANODIZED, MIL-A-8625, TYPE 1, CLASS 1 AND

CADMIUM, QQ-P-416, TYPE 1, CLASS 2 OR

ANODIZED, MIL-A-8625, TYPE 1, CLASS 2 AND

CADMIUM, QQ-P-416, TYPE 1, CLASS 1.

MATT2AADAL2024\$\$DST1020\$DAL2024\$\$DST1040*

MDCL2AAJBBQQ-A-250/5, T4\$\$JBCQQ-S-634, COND CDS\$JBDQQ-A-250/5,

T4\$\$JBEQQ-S-634, COND ACD*

SFTT2AADAN0000\$\$DCD0000\$DAN0000\$\$DCD0000*

STDC2AAJDBMIL-A-8625, TYPE 1, CLASS 1\$\$JBCQQ-P-416, TYPE 1,

CLASS 2\$JDDMIL-A-8625, TYPE 1, CLASS 2\$\$JBEQQ-P-416, TYPE 1,

CLASS 1*

MATT2AADAL5052*

MDCL2AAJFA415136-2125 H32, CAGE 14859*

MATT2AADAL0000*

MDCL2AAJFA521-0194-004, CAGE 88750*

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In the first example E. (1) above, the chemical analysis designator is noted as such where as in the second example, E. (2), the numbers could be either a specification/standard, drawing, chemical designator or a combination of all. Therefore, if the chemical analysis designator cannot be clearly recognized, these numbers will not be entered in MRC MATT, but may be input to MRC MDCL. If only MRCs MATT and SFTT are replied to then it will be considered to be NOT OTHERWISE SPECIFIED. If both MRC combinations MATT-MDCL and SFTT-STDC are replied to, it is to be considered as NOT OTHERWISE SPECIFIED, as a chemical analysis designator is not readily identifiable, although the data in MRCs MDCL and STDC may restrict the percentage or proportions of the various elements.

| | | |
|-----------------|--|-------------------|
| ALUMINUM | If no chemical analysis designator cited use COPPER ALLOY. If a designator is is cited use COPPER ALLOY with with applicable designator. | |
| BRONZE | | |
| BERYLLIUM | | |
| COPPER | | |
| BRASS | | |
| BRONZE | | |
| MAGANESE | | Use COPPER, ALLOY |
| BRONZE | | |
| NICKEL SILVER | | |
| PHOSPHOR | | |
| BRONZE | | |
| COPPER- | | |
| BERYLLIUM | | |
| COPPER-NICKEL | | |
| COPPER-NICKEL- | | |
| ZINC | | |
| NICKEL COPPER | | |
| CRES | If no chemical analysis designator cited use STEEL, CORROSION RESISTING. If a designator is cited use STEEL with applicable designator. | |
| STEEL, | | |
| STAINLESS | | |
| STAINLESS STEEL | | |
| NYLON | Use PLASTIC POLYAMIDE | |
| POLYAMIDE | | |
| NYLON | | |
| CLOTH | Use the specific material of which this type of reply is fabricated from. | |
| FABRIC | | |
| FELT | | |

FIBER

When a material such as ALUMINUM-COPPER (NOS) the use of AND (\$\$) will be necessary to record the reply, ALUMINUM and COPPER. If a specification/standard restricts the percentage or proportions to equal amounts, the dual input to MRC MATT must be utilized. This also will be used for Surface Treatment.

RUBBER: There are only two replies for RUBBER, NATURAL/SYNTHETIC, as the designations that are being used, cite physical conditions of the material, not chemical analysis designations. If the data reflected by these designations is required for NSN assignment, requirements must be added to Section I for the data input. If this data is not required for NSN assignment input the designations to MRC MDCL.

(Explanation of Designations)

TYPE: Environmental Protection

CLASS: Natural/Synthetic

GRADE 410: First Digit - Shore A Durometer Hardness Range Second and Third Digit - Minimum Tensile Strength

SUFFIXES: Indicates additional requirements for that particular grade.

Identified Secondary Address Coding

The utilization of Identified Secondary Address Coding (ISAC) is essential for characteristic search and screening for National Item Identification Number (NIIN) assignment. ISAC will be used for all requirements which reflect and/or imply a location. The following examples reflect the use of ISAC for requirements implying a location and those reflecting a location table:

EXAMPLE 1: A material requirement which implies a location by the recording instructions. "For Item Name BOLT, ASSEMBLED WASHER, use Secondary Address Coding for each part, entering replies in reply code sequence." The recording instructions must be revised to use ISAC for each different part or location of the item, and assign ISAC to each specific part or location. A

BOLT, ASSEMBLED WASHER, the bolt fabricated from STEEL, and the washer from COPPER.

EXAMPLE 2: A material and location requirement such as ANNQ will require the use of MRC MATT with ISAC assigned to the location table, and displayed in Appendix C. A bearing with the INNER RING fabricated from STEEL and the OUTER RING fabricated from STEEL, CORROSION RESISTING.

MATERIAL AND LOCATION
SURFACE TREATMENT AND LOCATION
SURFACE FINISH AND LOCATION
COLOR AND LOCATION

Relationship of Material and Surface Treatment Requirements

Replies for MRCs MDCL and STDC must be sequenced in the same manner as the data recorded in MRCs MATT and SFTT. Table 1 of MRCs MDCL and STDC is used to establish this relationship. A single input to a data chain is to be considered a single material. This is not to be confused with the location of the material cited through the use of Appendix C, Table 4. A single material indicates that only one material exists for the component being described. For example, the inner and outer ring of a bearing, each fabricated from different materials:

INNER RING - MATT2AKDAL5086*

| | |
|--------|-----------------------|
| 2AK | Identifies Inner Ring |
| AL5086 | Single Material |

OUTER RING - MATT2AMDAL2024*

| | |
|--------|-----------------------|
| 2AM | Identifies Outer Ring |
| AL2024 | Single Material |

The example reflects a single material for both components of the item as AND/OR coding was not utilized. Relationship must be established when AND/OR coding is utilized for MRCs MATT or SFTT. To relate the Specification/Standard data in MRCs MDCL and STDC to the materials recorded in MRCs MATT and SFTT. To make the data intelligible, the following examples are provided:

CODED INPUT -- INNER RING:

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MATT2AKDAL5086\$\$DST4130*

| | |
|--------|-----------------------|
| 2AK | Identifies Inner Ring |
| AL5086 | 1st Material (input) |
| \$\$ | AND Coding |
| ST4130 | 2nd Material |

(b) MDCL2AKJBBQQ-A-250/7,T4\$\$JBCQQ-S-634, COND CD*

| | |
|--------------------|--|
| 2AK | Identifies Inner Ring |
| B | Fed Spec Identifier (Table 1) |
| B | 1st Material Response Identifier (Table 2) |
| QQ-A-250/7,T4 | 1st Material Spec/Std |
| \$\$ | AND Coding |
| B | Fed Spec Identifier (Table 1) |
| C | 2nd Material Response Identifier (Table 2) |
| QQ-S-634, COND CDU | 2nd Material Spec/Std |

DECODE OUTPUT:

| | | |
|---|--|---|
| | MATERIAL----- | ALUMINUM ALLOY 5086 and STEEL COMP 4130 INNER RING |
| MATL Document and Classification---- | FED SPEC QQ-A-250/7, T4 1st Material | Response and |
| | FED SPEC QQ-S-634, COND CD 2nd Material | Response Inner Ring |

CODED INPUT -- OUTER RING

(a) MATT2AMDAL5086\$\$DST1040\$DAL2024\$\$DST4130*

| | |
|--------|------------------------------------|
| 2AM | Identifies Outer Ring |
| AL5086 | 1st Material (input) |
| \$\$ | AND Coding |
| ST1040 | 2nd Material (input) (No Spec/Std) |
| \$ | OR Coding |

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(a) MATT2AMDAL5086\$\$DST1040\$DAL2024\$\$DST4130*

| | |
|--------|----------------------|
| AL2024 | 3rd Material (input) |
| \$\$ | AND coding |
| ST4130 | 4th Material (input) |

(b) MDCL2AMJBBQQ-A-250/7, T4\$\$JBCQQ-A-250/5\$JBDQQ-S-634

| | |
|----------------|--|
| 2AM | Identifies Outer Ring |
| B | Fed Spec Identifier (Table 1) |
| B | 1st Material Response Identifier (Table 2) |
| QQ-A-250/7, T4 | 1st Material Spec/Std |
| \$\$ | AND Coding |
| B | Fed Spec Identifier (Table 1) |
| C | 2nd Material Response Identifier (Table 2) |
| QQ-A-250/5 | 2nd Material Spec/Std |
| \$ | OR Coding |
| B | Fed Spec Identified (Table 1) |
| D | 3rd Material Response Identifier (Table 3) |
| QQ-S-634 | 3rd Material Spec/Std |

DECODED OUTPUT -
OUTER RING

| | | |
|----------------|-----------------------------|----------------|
| MATERIAL ----- | ALUMINUM, ALLOY 5086 | (1st Material) |
| | AND | |
| | STEEL, COMP 1040 OR | (2nd Material) |
| | ALUMINUM, ALLOY 2024 | (3rd Material) |
| | AND | |
| | STEEL, COMP 4130 OUTER RING | (4th Material) |

MATERIAL DOCUMENT
AND CLASSIFICATION -----

| | |
|---------------------------|---|
| FED SPEC QQ-A-250/7, T4 | (Matches the 1st input) |
| 1st Material Response AND | |
| FED SPEC QQ-A-250/5 2nd | |
| Material Response OR | |
| FED SPEC QQ-S-634 3RD | (Does not match 2nd input MATT as no |
| MATERIAL RESPONSE | Spec/Std Data reflected for the material, |
| OUTER RING | therefore, 3RD input does not match) |

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The Decoded data for Example 2 has no meaningful relationship due to improper use of Table 1, as the Spec/Std are erroneous for the recorded data.

The input to MRCs MATT and SFTT must be identified consecutively within each data chain, utilizing Table 2.

The input to MRCs MATT and SFTT will not be identified consecutively throughout all data chains to a MRC.

See EXAMPLE 3 for the correct input for EXAMPLE 2 (b).

(b) MDCL2AMJBBQQ-A-250/7, T4\$\$JBDOQQ-A-250/5\$JBEOQ-S-634*

| | |
|----------------|--|
| 2AM | Identifies Outer Ring |
| B | Fed Spec Identifier (Table 1) |
| B | 1st Material Response Identifier (Table 2) |
| QQ-A-250/7, T4 | 1st Material Spec/Std |
| \$\$ | AND Coding |
| B | Fed Spec Identifier (Table 1) |
| D | 3rd Material Response Identifier (Table 2) |
| QQ-A-250/5 | 3rd Material Spec/Std |
| \$ | OR Coding |
| B | Fed Spec Identifier (Table 1) |
| E | 4th Material Response Identifier (Table 2) |
| QQ-S-634 | 4th Material Spec/Std |

DECODED OUTPUT:

MATERIAL DOCUMENT AND CLASSIFICATION---

--

FED SPEC QQ-A-250/7, T4 1st Material Response
AND
FED SPEC QQ-A-250/5, 3rd Material Response OR
FED SPEC QQ-S-634 4th Material Response Outer
Ring

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This corrected example reflects a meaningful relationship between MRC MATT, EXAMPLE 2 (a), and MDCL when decoded.

IDENTIFIED SECONDARY ADDRESS CODING

| <u>I/SAC INDICATOR</u> | <u>REPLY LOCATION</u> |
|------------------------|--|
| 2AA | OVERALL (ENTIRE ITEM) |
| 2AB | BASE (BOTTOM; SHIM) (PLATE NUTS) |
| 2AC | BRACKET (SHEET SPRING NUTS) |
| 2AD | CAP (PLATE AND CAP NUTS) |
| 2AE | CHANNEL (GANG CHANNEL NUT ASSEMBLY) |
| 2AF | LOCKING INSERT (ALL SELF-LOCKING NUTS) |
| 2AG | MOUNTING (RETAINING ASSEMBLY NUTS) |
| 2AH | NUT |
| 2AJ | OVERALL EXCEPT BEARING SURFACE |
| 2AK | OVERALL EXCEPT INSERT |
| 2AL | OVERALL EXCEPT THREADS |
| 2AM | SEAL (PLATE NUTS) (SEAL NUTS) |
| 2AN | SHELL (RETAINER; BASKET) (PLATE NUTS) |
| 2AP | THREADS |
| 2AQ | WASHER (WASHER NUTS) |
| 2AR | FIRST END |
| 2AS | SECOND END |
| 2AT | BOTH ENDS |
| 2AU | BOSS |
| 2AV | FLANGE |
| 2AW | CLIP |
| 2AX | SPRING |

FIIG Change List

FIIG Change List, Effective August 6, 2010

Added MRC's NHCF and ALDD.

Add New INC (68421) NUT, BREAKAWAY.

Add Drawing to group labeled "NUTS".